100 YEARS AGO

# SCIENCE

## CAFFEINE IN THE KOLA-NUT/ -12TB19

From 1 C&D. etc

With a good supply of fresh Kola-nuts the white trader in Africa can generally secure the friendship and protection of the native chiefs. From time immemorial these nuts have been chewed by the negro tribes of the Western tropical regions, and their use has gradually extended over a considerable portion of the African continent. Strange to say, our best botanical treatises gives us little information respecting these highly-prized seeds. They tell us that they are obtained from the Kola-tree (*Cola acuminata* or *Sterculia acuminata*), a plant belonging to the natural order *Sterculiaceæ* (or the Silk-Cotton family); but what they say about their use consists, for the most part, of incorrect statements culled from the works of old travellers. ~~Thus in Professor Bentley's *Manual*,~~ which is generally so trustworthy, the Kola-nuts are dismissed with a trivial notice of their supposed property ~~of sweetening~~ water that has become ~~more or less putrid~~.

At a recent meeting of the Pharmaceutical Society, the true nature of the popular masticatory of West Africa was revealed in two excellent papers; one, by Dr. Daniell, giving full information respecting its history and properties, and the other, by Dr. Attfield, recording the results of a chemical analysis.*

Dr. Daniell having found that the administration of a decoction of the fresh seeds, as a remedy for diarrhœa, was invariably attended with loss of sleep, suspected the presence of caffeine or some analogous principle. He thereupon commenced to seek for an alkaloid in the Kola-nuts, and succeeded, by a rough chemical process, in obtaining numerous aciform crystals resembling those of caffeine. That the validity of his discovery might be established by a more elaborate chemical examination, Dr. Daniell placed a quantity of the dried nuts in the hands of Dr. Attfield, the able director of the laboratories at Bloomsbury-square.

The result of Dr. Attfield's analysis has fully confirmed Dr. Daniell's discovery of caffeine in the Kola-nut. A ~~quantitative determination showed that the proportion of~~ the alkaloid present in the dried nut is two per cent. The proportion in coffee is from one-half to two per cent.; and in tea from one-half to three and a half per cent.

Caffeine was discovered in coffee by Runge in 1820. Seven years later, Oudry found in tea a crystalline substance which he called *theine*, supposing it to be a distinct compound; but Jobst and Mulder, in 1838, showed that it was identical with caffeine. Martius, in 1840, found the same substance in guarana; and Stenhouse, in 1843, obtained it from Paraguay tea. That the Kola-nut must now be added to the list of vegetable products containing caffeine is indeed a remarkable fact. Tea, coffee, guarana, Paraguay tea, and the Kola-nut are obtained from plants widely separated in botanical classification; yet they all contain the same principle, and are all used to satisfy a natural craving in man for nervous stimulants.

For further information respecting the chemistry of the Kola-nut, we must refer our readers to Dr. Attfield's elaborate paper.

## NEW APPLICATION OF SPECTRUM ANALYSIS.

There seems to be no end to the applications of spectrum analysis. With the wedge of glass, chemists, astronomers, and physiologists are opening Nature's safes, and disclosing things of inestimable value. Now, a new metal is brought to light; now, the constitution of the sun's burning atmosphere is revealed; and now a problem respecting the nature of the celestial nebulæ is solved.

In a paper,* recently brought before the Royal Society by Dr. Henry Bence Jones, the latest application of spectrum analysis is described. It occurred to the author that it might be possible to trace the passage of substances from the blood into the textures of the body by the aid of the spectroscope, and, with the assistance of Dr. Dupré, he has obtained some very remarkable results.

The metal lithium, which can be readily detected, when in extremely minute quantities, by the spectroscope, was selected as the substance to be traced, and guinea-pigs were generally used for the experiments. Usually, no lithium could be found in any part of their bodies; but when half a grain of chloride of lithium had been given to a guinea-pig for three successive days, the metal was detected in every tissue of the body. Even in the non-vascular textures, as the cartilages, the cornia, the crystalline lens, lithium was found.

Two animals of the same size and age were taken: one was given three grains of chloride of lithium, and was killed eight hours afterwards; the other, which had no lithium given to it, was also killed. A piece of the lens, 1-20th of a pin's head in size, taken from the former, showed the lithium spectrum distinctly, proving that the metal had penetrated to the very centre of the lens. When the whole lens of the other animal was burnt at once, no trace of lithium could be detected.

A patient, who was suffering from diseased heart, took fifteen grains of citrate of lithia thirty-six hours before her death, and the same quantity six hours before death. The crystalline lens, the blood, and the cartilage of one joint were examined for lithium: in the cartilage it appeared very distinctly; in the blood exceedingly faintly; and when the outer lens was taken, the faintest possible indications of lithium were obtained.

Another patient took ten grains of carbonate of lithia five hours and a half before death: the lens showed very faint traces of lithium when half the substance was taken for one examination; the cartilage, however, showed lithium very distinctly.

The importance of these results cannot be questioned. Our most valuable medicines, like the salts of lithium, belong to Graham's class of *crystalloids*, or diffusible substances; and their rapid action upon the system can now be partially understood. We trust that Dr. Bence Jones will continue his investigations, for the results already arrived at lead us to believe that spectrum analysis may do much for Therapeutics.

# THE MONTH

## UNITED SOCIETY OF CHEMISTS AND DRUGGISTS.

### CHEMISTS AND DRUGGISTS' BILL—DEPUTATION TO THE HOME SECRETARY.

A deputation of this Society waited upon Sir George Grey, at the Home Office, on Wednesday last, in reference to the Chemists and Druggists' Bill. The deputation was introduced by Sir John Villiers Shelley, Bart., M.P.; Sir Morton Peto, Bart., M.P.; Sir Robert Clifton, Bart., M.P.; Harvey Lewis, Esq., M.P.; Salisbury Butler, Esq., M.P.; William Cox, Esq., M.P.; G. S. Beecroft, Esq., M.P.; and Charles Forster Esq., M.P.; comprising also the Mayor of Walsall; Henry Matthews, Esq., F.C.S., V.P.; Messrs. Slugg, Manchester; Stead, Leeds; Manby, Southampton; Toogood, Hull; Mayger, Northampton; Blain, Bolton; Smith, Rye; Barnaby, Rochester; Miller, Blackheath; D'Aubney, Thomas, Loane, King, Tidman, Boor, Baumgarten, Caudell, Wade, Heppell, Buott, jun., and many other gentlemen, including Worthington Evans, Esq., the Solicitor, and Mr. C. Buott, the Registrar and Secretary of the Society.

Sir John Villiers Shelley, Bart., M.P., on introducing the deputation, stated that he did so the more willingly as he believed the Pharmaceutical Society had already had an interview with Sir George Grey, and had represented that they possessed the support of the trade; whereas the gentlemen present, from various parts of the country, were members of a society larger than that of the Pharmaceutical Society, and entirely disowned such proceedings on their behalf, and were there to show that such statements were entirely erroneous. He knew Sir George's time was very precious, and, therefore, he would not trespass more upon it, as Sir George had to attend the levee, but would leave the gentlemen present to express their own views and wishes respecting their Bill. He would only add, that if they agreed with him, he would like to suggest that the Bills of the two Societies be referred to a Select Committee of the House of Commons; and, perhaps, such a course would be approved by Sir George.

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* Printed in *Pharm. Journ.* for the present month.

* "On the Rapidity of the Passage of Crystalloid Substances into the Vascular and Non-vascular Textures of the Body."

Mr. C. Buott (Registrar and Secretary) wished Sir George to understand that any statement of the Pharmaceutical Society—that they represented the trade—was entirely fallacious. It was quite true that they had obtained signatures from various parts of the country in support of their Amended Act; but they had so misrepresented their intentions, that numbers who signed their memorial, upon being better informed, repudiated all connexion with them; and, as a proof that his statement was correct, he held in his hand a petition from Birmingham, signed by no less than 107 chemists and druggists, many of whom had previously signed the memorial to the Pharmaceutical Society.

Sir G. Grey: How many members are there in the Pharmaceutical Society?

Mr. Slugg (Manchester): A few more than 2,000.

Sir George Grey: What number of chemists are there in the United Kingdom?

Mr. Wade: From 18,000 to 20,000, including all grades.

Sir George Grey: And do the Pharmaceutical Society represent the United Kingdom in their returns?

Mr. Slugg: They do; and they do not. In stating their own numbers they include those of the entire kingdom; but in giving the numbers of the trade they count only those in England and Wales.

Sir George Grey: The Pharmaceutical Society had an interview with me some time back, and desired me to take charge of their Bill; but I had an idea that they did not represent all sections of the trade, and requested them to give me some proof that they did. I thought it undesirable to have another interview with them, but I requested them to send me the memorial. I declined to take up their Bill, supposing other interests would come forward.

Mr. Slugg: I assure you, Sir George, that I was entirely mistaken when I put my signature to the memorial of the Pharmaceutical Society; and I now entirely repudiate it in favour of the Bill of the United Society. I thought at first the Pharmaceutical Society had more influence, and that as half a loaf was better than none, I signed their memorial; but when I became aware of their determination to confine the government in their own hands, instead of making a representative institution, I made no hesitation in withdrawing from it: and I here testify what I know to be the feeling of the trade throughout a large portion of my district.

Mr. Wade hoped he might be permitted to impress upon Sir George Grey that the United Society were prompted by the recommendation of Dr. Alfred Taylor, in his report to the Government on poisoning, to introduce some restriction upon the sale of poisons, and those who had the dispensing of medicines. This Society heartily concurring that such was necessary, determined to deal with the matter themselves, and had produced a Bill, which he thought would meet the wishes of Government, inasmuch as, while it preserved the sale of deadly poisons in the hands of persons qualified to dispose of them, it in no way restricted the sale of simple medicaments of daily requirement. As the law stood, there was nothing to prevent an errand boy, or any person, however ignorant, vending the most deadly poisons. The object was to prevent this by an inexpensive form of examination; not demanding, as is the case with the Pharmaceutical Society, that persons should have a knowledge of Latin, Botany, Materia Medica, Pharmacy, and Chemistry, at an expense far too great for the majority, but that for a trifling sum they should pass a simple examination in the nature and doses of medicines, with ability to read prescriptions. The great error of the Pharmaceutical Society had been in making their standard too high and expensive, and the consequence was that they did not get, on an average, more than thirty or forty new members per annum—a number totally inadequate to the requirements of the community. The United Society, on the contrary, wished to place no restriction upon the greatest freedom in the trade, but only to put a stop to the scandal which Dr. Taylor had stated existed, and to prevent those deplorable cases of poisoning that occurred through ignorance.

Mr. Cox, M.P., suggested the desirability of the two Societies coming to some arrangement, and agreeing to a Bill which might have the concurrence of the whole trade.

Mr. D'Aubney: This proposition had already been made by the United Society, but the Pharmaceutical Society had most discourteously declined. He was therefore of opinion that further efforts in this direction were utterly useless, their desire being to arrogate to themselves a superiority, which did not exist except in name.

Mr. Toogood, President of the Hull Association of Chemists, had been deputed to represent the feeling of the druggists in that town, who were entirely in favour of the United Society's Bill.

Mr. Beecroft, M.P., said that he was acquainted with the wishes of many of his constituents, who were most anxious that the present objectionable position of the chemists and druggists should be removed; and he thought the presence of so many gentlemen from the country represented the true feeling on the question.

Mr. Stead (Leeds) had the pleasure to state that the object of the United Society met with the entire approval of the medical body in his part of the country, and the druggists of Leeds desired that the trade should be restricted, after a certain period, to those only who, by examination, could prove themselves competent.

The Mayor of Walsall desired Sir George Grey to consider the gross injustice to one portion of the trade of compelling them to serve on juries, while the others were exempt. In the country the chemists, having all the responsibility of medical men, were continually dragged out to inquests or juries, and many were obliged to leave their business either in charge of shopboy or wife.

Sir George Grey: You are alluding to the law as it now exists?

Mr. Forster, M.P.: Yes, Sir George; and a provision is made in the United Society's Bill to amend the Juries Act, so far as the chemists are concerned: and I have much pleasure in bearing testimony to the words of the last speaker. In our part of the country, I have positive knowledge that it is as he states, and that these gentlemen, whose occupations are really of a benevolent character, are of the greatest service to the poor; and, therefore, give them a claim to the attention of the Legislature.

Mr. Manby, of Southampton, had the honour of representing the views of a large number of druggists in Southampton and its vicinity, and wished to state that, although an old member of the Pharmaceutical Society, he had willingly joined the United Society to promote their Bill, feeling convinced by the refusal of the Pharmaceutical Society to consult the wishes of the trade, that certain numbers of their governing body were determined not to carry into effect the principle upon which the Pharmaceutical Society started. He was not alone in this opinion, as some hundreds of pharmaceutical members had also joined the United Society.

Mr. Blain was deputed by the druggists of Bolton to state that they gave their entire support to the United Society's Bill.

Mr. Mayger, of Northampton, Mr. Barnaby, Rochester, Mr. Smith, Rye, and other gentlemen, followed with similar expressions of confidence in the United Society's Bill.

Sir George Grey: I will look over the Bill; and think the suggestion of Sir John Shelley a very proper one, and would advise its being acted upon. By introducing the Bill, it would most likely secure a Select Committee of the House.

Sir John Shelley having thanked Sir George Grey, on behalf of the deputation, for his great courtesy in giving so much time, which he knew was already engaged to attend upon the Prince of Wales, the deputation then withdrew.

### GLASGOW.

A meeting, called by circular, for the purpose of considering the claims of the United Society on the support of the trade in Glasgow, was held in Angus Temperance Hotel, Argyle-street, on Thursday evening, March 2nd. On the motion of Mr. W. Jardine, Hon. Local Secretary for Glasgow, seconded by Mr. T. D. Moffat, John Campbell, Esq., of the Glasgow Apothecaries' Company, was called to the chair.

The CHAIRMAN, after a few preliminary remarks on the business on hand, called on

Mr. JARDINE, who said that three years ago the United Society was formed for the purpose of incorporating the trade into an united and responsible body, an object which the Pharmaceutical Society, after having been twenty-three years in existence, had failed to accomplish. It was a common impression, that the United Society had pursued from its commencement a policy of direct antagonism to the Pharmaceutical Society; but nothing could be further from the truth. It was not until after repeated unsuccessful attempts on the part of the United Society at friendly co-operation,—overtures which were always met with studied slights, ignoring even the existence of the United Society—and until after they had been most grossly betrayed by the Pharmaceutical Council in the matter of the Juries' Bill, that anything approaching to hostility was manifested towards that Council by the members of the United Society. He then read the revised rules of the Society as contained in the last annual report; and in urging its claims upon the support of the trade, said it had defeated the Bill advanced by the Medical Council, and which, if not supported, was not at least opposed by the Council of the Pharmaceutical Society. In the three years of its existence, it had invested £400 towards the Benevolent Fund, and £200 towards the Incorporation and Defence Fund; and this with an income of only £220 in the first year, and £500 in the third. It has also taught the Pharmaceutical Council to treat the trade with more respect and courtesy than it has hitherto been in the habit of doing. In concluding, he was happy to announce that the Executive of the United Society had in the final draft of their Bill excluded Scotland from its action. In doing so, it was merely acceding to the general wish of the trade in Scotland. This announcement was received with applause.

The CHAIRMAN said that he joined the United Society, not because he expected to derive any immediate or personal benefit from so doing—this was a narrow and selfish view to take of the matter—but because it formed a bond of brotherhood in the trade. Another consideration was, that by joining the United Society we strengthened the hands of a body ever watchful of our interests, and ever ready to defend them when they were at stake.

Mr. T. D. MOFFAT could not make up his mind to join the Society. He was strongly opposed to sending money to London. He afterwards explained, however, that he said so with more especial reference to the Pharmaceutical Society.

A cordial vote of thanks to the Chairman brought the proceedings to a close.

## YORK CHEMISTS' ASSOCIATION.

WE have much pleasure in giving publicity to the following copy of a letter addressed to the Home Secretary by our friends at York:—

24, High Ousegate, York,
March 4th, 1865.

DEAR SIR,—As the Pharmaceutical Society have given public announcement in their journal of their intention, if possible, to persuade you, as the Home Secretary, to take charge of an amended Pharmacy Bill, and make it a Government measure, I am instructed by the York Chemists' Association (which is composed of members of the Pharmaceutical Society, of the United Society of Chemists and Druggists, and non-members of either, and which includes the whole trade here) to write to you, and give you their opinion of the measure, as well as certain resolutions that have been come to by the Association in public meeting assembled; and which resolutions and opinions have been published in the *Pharmaceutical Journal*, as well as in the CHEMIST AND DRUGGIST, a trade journal in connexion with the United Society.

We say that the Pharmacy Bill, as at present proposed, is illiberal and exclusive, and completely ignores the rights of the great mass of chemists and druggists who do not belong to the pharmaceutical Society. We contend that in any enactment affecting so respectable a body as the chemists and druggists, that equal privileges be given, and that the right of self-government should be maintained. We also say, that neither the public interests nor the confidence of chemists and druggists can be secured, by allowing the administration of an Act for the regulation of the trade to rest with any governing body who do not admit the principle of such equal privileges, with the right of self-government, as a matter of common justice.

The York Chemists' Association are anxious above all things that complete union and harmony should prevail, and not that one portion of the trade should endeavour to exalt itself and oppress the other; and in accordance with these views, the pharmaceutical chemists have joined the rest of the trade in York, in order to show a proper feeling of fellowship with those who do not belong to their body; and they are convinced (should other towns follow so good an example) that the Pharmaceutical and United Societies would then endeavour to sink their differences, and procure a Pharmacy Bill giving equal rights to all.

I would also impress upon you the fact, that the Pharmaceutical Society consists of only one-fourth of the whole trade, and that three-fourths, or more, of its present members have been admitted by a money payment, and not by examination; and, therefore, are not superior or more qualified to carry on their businesses than the rest of the chemists; in fact, up to the present time, whether a man is a pharmaceutical chemist or not makes no difference with the public, the only criterion of success being the chemist's business qualifications, whereby the confidence and patronage of the public is obtained. At the same time, we admit it is highly necessary to legislate for the better regulation of the trade, in order that all persons so admitted after a certain time may be certified as competent to conduct such business; so that accidents from the ignorant and careless sale of poisons may be diminished.

I have enclosed an account of the meeting of this Society, by which you will see that we are not hostile to the Pharmaceutical Society, but would assist them in obtaining their Bill, providing they would agree to certain amendments which are appended to the report; but, if they are not inclined to be liberal, we shall most certainly oppose them, and a majority of the Society would support the Chemists and Druggists' Bill.

A petition embodying the York resolutions has been signed by all the principals in the trade with the exception of two; it contains ninety-two signatures, of which thirty-seven are of chemists in business, and fifty-five are those of assistants; and will be presented to Parliament by Colonel Smyth or Mr. Westhead.

On behalf of the York chemists, I would request you will take our resolutions into consideration, and so modify, or cause to be altered, the Pharmacy Bill or the Bill of the United Society to meet our views, as I am convinced nothing else will satisfy or do justice to the trade; by so assisting an important piece of legislation, you will place the chemist in that position to which his intelligence and education so fully entitle him, and at the same time promote harmony and good-will where, at present, ill-feeling and jealousy unfortunately prevail.

I am, dear Sir,
Yours truly,
JOHN BROWN,
*Honorary Secretary.*

The Rt. Hon. Sir George Grey, Bart., *Home Secretary.*

## GREENOCK CHEMISTS AND DRUGGISTS.

THE second annual *soirée* of the chemists and druggists of Greenock took place on the 9th ultimo in the Cathcart-street Assembly Hall, which was prettily decorated with evergreens and flags for the occasion. The company numbered about 200, including ladies. After tea, addresses were delivered by the Chairman (James McWilliam, Esq.), the Rev. F. L. Robertson, Mr. W. Macnaught, Mr. J. Fergusson, Dr. Robertson, and Mr. Moffat. The last two gentlemen, with Messrs. Campbell, Sutherland, Taite, and others, represented the Glasgow Chemists and Druggists' Association. The musical arrangements were excellent. Mr. J. W. Gillies presided at the pianoforte, and Master Gillies performed a solo on the violin. The vocalists whose names appeared on the programme were Messrs. Black, Cameron, and McMillan, and their singing called forth hearty applause. Mr. Stephen Young, of Glasgow, was, however, the lion of the evening. Having been pressed to sing, he delighted the company by his original and telling allusions to trade matters. After the concert, the hall was cleared for a short time; and when the company again assembled, dancing was commenced to the music of Mr. Wallace's quadrille band.

## PARLIAMENTARY INTELLIGENCE.

### BILL OF THE PHARMACEUTICAL COUNCIL.

In the House of Commons last Thursday, Sir Fitzroy Kelly gave notice that on the 16th inst. (to-morrow) he should move for leave to bring in a Bill to regulate the qualifications of chemists and druggists.

### PROPOSED AMENDMENT OF THE PARTNERSHIP LAW.

The Bill introduced by Messrs. Dodson, Milner Gibson, and Hutt, for the amendment of the partnership law, so as to remove the restrictions that now prevent traders from obtaining advances of capital upon the legitimate principle that prevails in nearly every other country, of the lender taking a proportionate share of the risk or profit of the sum employed, is extremely concise. Annexed is an abstract of its clauses:—

"1. The advance of money by way of loan to a person in trade, upon a contract that the lender shall receive a rate of interest varying with the profits, or shall receive a share of the profits, or bear a share of the loss arising from carrying on such trade or undertaking, shall not of itself constitute the lender a partner, or render him responsible as such.

"2. In the event of any such trader being adjudged a bankrupt, or dying in insolvent circumstances, the lender of any such loan shall not be entitled to receive any portion of his principal, or of the profits or interest payable in respect of such loan, until the claims of the other creditors, for valuable consideration in money or money's worth, have been satisfied.

"3. No contract for the remuneration of a servant or agent, of any person engaged in any trade or undertaking by a share of the profits of such trade or undertaking, shall of itself render such servant or agent responsible as a partner.

"No person being the widow or child of the deceased partner of a trader, and receiving by way of annuity a portion of the profits made by such trader in his business, shall, by reason only of such receipt, be deemed to be a partner of, or to be subject to, any liabilities incurred by such trader."

## MYSTERIOUS POISONING CASE.

Mr. J. Wybrants, the coroner for East Somerset, has just been investigating a most mysterious case at Emborough, a small village, lying between the cities of Bath and Wells. The facts of this very remarkable case are as follow:—On the 8th of February, William, the only surviving child of Mr. Charles Coles, aged seven months, died very suddenly, in consequence of a powder administered to him by his mother, and which powder she supposed to be one of "Steadman's Soothing Powders," from a packet of which she took it. Death resulted in ten minutes. It appeared that on the 31st of December a woman named Ann House purchased of Mr. Habgood, chemist, Wells, a packet of Steadman's powders for Mrs. Coles, and that in January Mr. and Mrs. Coles themselves purchased another packet of the same powders. One was given to the child with a good effect, and the remainder were placed in a cupboard in the parlour. In the evening of the 8th of February, Selina Young, the nursemaid, was sent by Mrs. Coles to the parlour for the powders, and she took them into the room where Mrs. Coles was nursing the child. Mrs. Coles took out a powder, mixed it with moist sugar, and gave it to the child, who died within ten minutes after. Mr. Cartner, a surgeon, was sent for; and when he arrived he requested a Mr. Ham, who was present, to take charge of the remaining powders. He did so; and subsequently Mr. Cartner made a *post mortem* examination of the child, and found that he had died of a collapse produced by corrosive mineral poison. On examining the powders given to Mr. Ham, he found that one of them contained ten grains of bichloride of mercury; the other powders contained none. Mr. Habgood, the chemist of whom the powders were bought, Mr Faulkner, of 5, Queen's-row, Walworth-road, the proprietor and manufacturer of the powders, and Mr. White, the managing clerk of Messrs. Barclay and Co, the agents who supplied Mr. Habgood, were severally examined, and stated that by no possible means could poison have been introduced into the powder as issued by them, inasmuch as they were sealed and stamped with the Government stamp. It was further proved that Mr. Coles kept lump mercury in his house for the purpose of treating his sheep, and that Joseph Chard the shepherd, also had a lump, which he had lost.—At the adjourned inquest, held last Wednesday, Mr. Henry Deane, a microscopic analyst, member, councillor, and examiner of the Pharmaceutical Society, from London, stated that he had carefully examined and analyzed the powders, and found them to contain corrosive sublimate, that being a deadly poison. There being no more evidence that could be brought to bear upon the case, the Coroner said, there was no doubt in his mind that a murder had been committed by the substitution of corrosive sublimate for the real powder. He believed that some evil-disposed person had placed the poison there—in the baby's medicine cupboard—not to kill Mr. or Mrs. Coles, but to destroy the child. The powders were purchased, and when delivered in that house they were sealed with the Government stamp around them. How, then, did this powder come there? That mystery could not be unravelled. Mr. Coles had told them of whom he purchased the mercury, and where he placed it in the bureau. A portion of this had been lost by the shepherd from a hole in his pocket, and it was most remarkable that the poison the child died of was similar to that the shepherd lost. The evidence of Mr. Deane, the analyst, whom the coroner had no idea of bringing before them but for the purpose of endeavouring to unravel the mystery, showed that both powders were of the same nature, and there was no doubt that the poison had been substituted for the original powder for the purpose of killing the deceased. This was the only child out of six the parents had been able to save, and it may very naturally be imagined they must have been anxious that it should live. There seemed to be no one with whom the parents were not on friendly terms, and there appeared to be no motive for the act. If they thought, by adjourning again, more light would be brought to bear on the point, he was most willing to do so. The jury returned the following verdict:—"That the deceased came to his death by the administration of poison, having been substituted for Steadman's powders by some person or persons unknown."

## POLICE.

### A BOY CHARGED WITH ATTEMPTING TO SET FIRE TO A HOUSE.

At the Lambeth Police-court, on the 13th ult., Henry John Element, a boy of 16, was finally examined before Mr. Elliott on a charge of attempting to set fire to the house of Mr. Ryder, a chemist, in the Camberwell-road.

From the evidence it appeared, that for six weeks the prisoner had been employed by the prosecutor to take down and put up the shutters, and also to sweep out the shop. On the morning of yesterday week, the prisoner was admitted into the shop by the private door, at twenty minutes past eight o'clock, by the prosecutor's assistant; and about fifteen or twenty minutes afterwards, the shop was found to be filled with smoke caused by a smouldering heap of waste paper, oiled cloth, and other things which had been piled up on the floor near to a cupboard, and which had been set fire to. The fire was extinguished by the application of sufficient water; not, however, before it caused the blistering of the paint on the cupboard, and the wall close to where it had been placed; and it was thought that, had it not been for the want of sufficient air, the consequences might have been very serious. Mr. Ryder, the prosecutor, and Mr. Carr, the assistant, said that, on examining the place where the pile had been set fire to, they discovered a small portion of gunpowder, about a spoonful, close to it, and another spot marked as if an explosion of a similar quantity had taken place. Mr. Carr, the assistant, said it had always been the custom of the prisoner to call out "I am done, Sir," before leaving; but on the morning in question he said nothing of the sort, nor did witness hear him go out.

The prisoner, after being cautioned by the magistrate, said, "I'll take my solemn oath I did not do it." He was fully committed for trial. Application was made by his father to admit him to bail, but Mr. Elliott refused to entertain it.

### A CHEMIST FINED FOR ASSAULTING A LADY.

At the Westminster Police-court on the 20th ult., Mr. George Fenton, chemist, Great Smith-street, Westminster, appeared to a summons charging him with assaulting Miss Mary Anne Cleghorn.

The complainant stated, that on the evening of the 11th ult. she went to the defendant's shop with a phial for some creosote, when he falsely accused her of stealing a bottle of scent from his counter. She told him indignantly that she had not done so, when he pushed her back into the shop, shut the door, and, putting his back against it, detained her while he sent for a policeman. She then produced everything she had from her pocket in proof of her innocence, and expressed a desire to be searched. The defendant did not give her in charge to the constable; and she went home.

The defendant, in reply to the charge, said that the complainant came into his shop just as he was about to close it. He came out of the inner room to serve her, when he immediately missed a bottle of scent, which he had had in his hand only two minutes before, and which he had left on the counter. He accused her of stealing it, when she vehemently denied the charge. He told her to give it up and go, and upon her repeating her asseverations that she had not got it, he said he would send for a policeman. She was then about to leave the shop, when he said she should not go till a constable arrived, and hastily intercepting her passage to the door, shut it. As there were glass cases on either side, he certainly, for want of room, pressed against her in passing her. He might have pushed her in that respect; but he denied that he ever laid his hand upon her. She did not tell him who or what she was until after the policeman came.

Mr. Selfe wished to know whether he now withdrew the charge of felony which he had imputed to Miss Cleghorn.

Defendant replied he did, most certainly, as he found that the complainant was a person of the highest respectability; but his losses just at that time in the evening had of late been very frequent, and his impression at the moment he missed the bottle of scent certainly was that she had committed the theft. He now, however, altogether retracted that suspicion.

Mr. Selfe, adverting to the circumstance of Mr. Fenton having been falsely charged some time ago with stealing a bracelet from a woman of loose character, said he himself having suffered from an unjust accusation, should have been more acutely sensible of how much another person's feelings might be wounded by an unfounded charge of theft. He had done all he could now in fully retracting that charge, which was to his credit; but he had been guilty of an assault in preventing Miss Cleghorn from leaving his shop.

Mr. Selfe fined him 40s. and costs.

### ATTEMPTED WATCH ROBBERY.

At the Middlesex Sessions, on the 7th inst., Thomas Owens, 17, was charged with stealing a watch from the person of Mr. Henry Barton.

The prosecutor, a chemist, was in Leicester-square on the occasion of Saville House being burnt down. There was a crowd. The prisoner was in front of him. He saw his watch-chain under the prisoner's arm, and the watch was dragged from him with some violence.

The defence was that the real thief used the prisoner as a screen.

Guilty. Nine months' imprisonment with hard labour.

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## GOSSIP.

At a late meeting of the Court of Common Council, a vote of thanks was passed to Baron Liebig, for his valuable and elaborate communication on the utilization of sewage. The vote is to be written on vellum, at a cost not exceeding fifty guineas.

A great chemical laboratory has been founded at Naples, for the study of pure and applied chemistry, by M. Cassola, a rich, energetic, well-informed man, who has already founded at Quito a similar establishment. He has rented an immense convent, and has made the monks the assistants of the laboratory. He has constructed furnaces, bought chemicals and instruments at Paris, and invited young *savants* to establish themselves in Naples, and to teach there.

All claims upon the estate of the late Mr. Henry Briggs, chemist, of Blackburn, must be sent to Mr. Robert Towers, Blackburn.

The firm of R. A. Jackson and Co., manufacturing chemists, Ashmeads, has been dissolved; and the business in future will be carried on by Messrs. R. H. Dixon and James Dean, under the name of R. H. Dixon and Co.

Mr. James Carr has opened business at 68, High-street, Dumbarton, as a chemist.

About a fortnight since, a fire occurred at the Magdden Chemical Works, near Misselburg, occupied by Mr. Irvine. Damage to the extent of about £80 was done, which is covered by insurance.

Mr. Thomas Nasbet, (late assistant with Mr. Dodson), has re-opened the drug and chemical establishment lately occupied by Mr. Archer, No. 87, Hendon-road, Sunderland.

Messrs. Allhusen and Sons, Sunderland, lost, a short time since, five tons of bleaching powder and chemicals by the sinking of a wherry.

Mr. R. G. Stewart, chemist and druggist, has removed from No. 2, Cammomile-bridge, to No. 54, North Pitt-street, Edinburgh.

William George Walker, chemist, High-street, Chatham, has arranged to pay his creditors a compensation of 5s. in the pound.

William Flooks, chemist, Wells, has agreed to pay his creditors 10s. in the pound, by two equal instalments of 5s. each; the first forthwith, and the second on the 22nd of April.

William Hill, manufacturing chemist, Kingston-upon-Hull, has made an assignment for the benefit of his creditors. The trustees are Mr. J. Ardill, clasp manufacturer, Leeds, and Mr. J. Davies, brush manufacturer, Kingston-upon-Hull.

The Directors of the Bothwell and Uddington Gas Company (Limited) are prepared to receive tenders for the purchase of the Tar and Ammoniacal Liquor produced at their works. Tenders to be addressed to the Secretary, Uddington.

Claims on the estate of the late Frederick Harris, chemist and druggist, Merthyr Tydvil, are to be sent to Messrs. Davies and Son, solicitors, Crickhowell.

Mr. G. S. Manthorp has succeeded to the chemist and druggist's business of Mr. Lasham, Dedham, Essex.

The partnership of Arnott Brothers and Co., manufacturers of chemicals, has been dissolved, and the business will for the future be conducted by Mr. Thomas R. Arnott.

The business of Messrs. H. Becker and Co., vitriol manufacturers, Foxdenton, will hereafter be conducted by Mr. John Leigh Becker alone; the style of the firm (H. Becker and Co.) remaining unchanged.

Thomas Kenyond and Co., of the Albion Chemical Works, Miles Platting, have made an assignment for the benefit of their creditors. The trustee is Mr. Thomas Kenyon, junior, drysalter, Miles Platting.

John Fletcher, drysalter, Halifax, has assigned his estate and effects, on trust, to Mr. L. Dyson, chemist, Huddersfield, and Mr. J. Johnson, manufacturing chemist, Huddersfield.

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## GAZETTE.

### BANKRUPTS.

Dyer, John, Cotton-street, Limehouse, and Weston-street, Bromley, manure manufacturer.

Turner, J. S., Wordsley, Staffordshire, chemist.

Young, William, Barton-on-Humber, chemist.

### PARTNERSHIPS DISSOLVED.

Becker, H. and Co., Foxdenton, near Oldham and Altham, Lancashire vitriol manufacturers.

Blunt, T. and Salter, J. B., Shrewsbury, chemists.

Bourne and Dawson, Liverpool, drysalters.

Clutterbuck and Gregory, Bristol, drysalters.

Fitch and Nottingham, St. Peter's-street, Hackney-road, general druggists.

Gawdery and Sons, George-street, Minories, brushmakers.

Hepworth and Metcalfe, Nottingham and Awsworth, manufacturing chemists; as far as regards T. and H. Metcalf.

Jackson, R. A and Co., Ashmeads, near Chalford, Gloucestershire, manufacturing chemists; as far as regards R. A. Jackson.

### SCOTCH SEQUESTRATION.

Wilson, J., sen., Park-house, near Glasgow, manufacturing chemist, and Bower Walls, near Barrhead, Renfrewshire, coalmaster.

## REVIEWS

*The Laws Relating to Public Health, Sanitary—Medical—Protective. Including the Legislation, to the end of the last Session of Parliament, connected with Adulteration of Food, Alkali Works, Apothecaries, Arsenic, Bakehouses, Baths and Washhouses, Bread, Burials, Chemists, Chimney-sweepers, Diseases Prevention, Factories, Gunpowder, Local Government, Lodging Houses, Lunatics, Meat, Medical Registration, etc., Metropolis Management, Miners, Nuisances, Petroleum, Poison, Recreation Grounds, Quarantine, Smoke, Vaccination, Water, etc.: Also Notes, Forms, and Practical Instructions.* By Thomas Baker, Esq., of the Inner Temple, Barrister-at-Law, etc. (London: W. Maxwell, etc.) Pp. 698. Price 18s.

We have long felt the want of a compendious analysis of the numerous Acts passed during the present century for the protection of the Public Health. This want has at last been supplied by the publication of Mr. Baker's elaborate work, in which our sanitary, medical, and protective statutes are brought together, and displayed as parts of one great scheme of beneficent legislation. Many of these statutes deal with subjects in which our readers are necessarily deeply interested; indeed, the only laws that specially relate to the calling of a chemist and druggist are those which have been made for the protection of the Public Health. In the work before us these enactments are digested and arranged under different heads, so as to give a key to the legislation connected with each separate subject; thus, under the head "Poison," we find an abstract of the Arsenic Act of 1851, and a summary of the provisions in two other statutes against the criminal use of poison. To elucidate the text, Mr. Baker gives foot-notes on almost every page, in which he cites cases illustrating the working of the law.

The classified digest of the enactments is followed by an appendix, containing the principal statutes in the order and in the words in which they were passed. Among these will be found the Apothecaries' Act, the Vaccination Acts, the Sale of Arsenic Act, the Act for Regulating the Qualifications of Pharmaceutical Chemists, the various Medical Acts, the Adulteration of Food Act, the Alkali Works Act, and other measures in which our readers are more or less interested. The statutes are followed by numerous forms and practical instructions; and that rare product, a good index, completes the work.

In every large establishment where a chemist and druggist's business is carried on, this valuable law book ought to be kept among the works of reference. Those who think it too expensive for their means should compare its cost with any of the numerous penalties incurred by the violation or neglect of the provisions which are so lucidly explained in its pages.

*For and Against Tobacco.* By Benjamin Ward Richardson, M.A., M.D., etc. John Churchill and Sons. Pp. 76. Price 2s. 6d.

This able essay on Tobacco, in its relations to the health of individuals and communities, may be read with profit by those who smoke and those who condemn smoking. It describes the real evils that spring from the pipe, and clears away a large amount of anti-tobacco nonsense. Though the facts against tobacco outweigh those in the other scale, every smoker will admit that Dr. Richardson holds the balance fairly. He is evidently no lover of the weed, but he is in no way tainted with that physical puritanism which rejects all things except the necessaries of life. "Tobacco gives rise to serious functional disturbances," says the doctor, "and no regular smoker enjoys perfect health;" but, on the other hand, he says it is "one of the least hurtful of luxuries." The opinions of so impartial a judge ought to be thankfully received at the present time; for if the evils of tobacco-smoking are as formidable as the pipe-breakers maintain they are, the British nation is rushing headlong to destruction.

Dr. Richardson thinks that it is unfair to take the unburned tobacco-leaf, instead of the tobacco smoke, as the basis of any argument against smoking. All his experiments have been made with smoke obtained by means of apparatus which imitated the action of a smoker. A small pair of bellows drew over the air in whiffs; part of the smoke produced by the combustion of the tobacco was allowed to escape from the bowl of the pipe, or the lighted end of the cigar, while the remaining part was drawn into the bellows, and subjected to analysis. For a full account of the composition of this smoke we must refer our readers to the book.

The conclusions to which Dr. Richardson has been led by his various experiments and investigations may be thus epitomized:—The effects that result from smoking are due to *carbonic acid, ammonia, nicotine,* a *volatile empyreumatic substance,* and a *bitter extract.* The more common effects are traceable to the carbonic acid and ammonia; the rare and more severe to the nicotine, the empyreumatic substance, and the extract. The effects produced are *very transitory,* the poisons finding a ready exit from the body. All the evils of smoking are *functional* in character, and no confirmed smoker can ever be said to be well, so long as he indulges in the habit; it does not follow, however, that he is becoming the subject of organic and fatal disease because he smokes. Smoking produces disturbances in the blood, on the stomach, the heart, the organs of sense, the brain, the nervous filaments, and sympathetic or organic nerves, the mucous membrane of the mouth, and on the bronchial surface of the lungs. The statements to the effect that tobacco smoke causes specific disease, such as insanity, epilepsy, St. Vitus dance, apoplexy, organic disease of the heart, cancer, consumption, and chronic bronchitis, have been made without any sufficient evidence; all such statements are devoid of truth, and can never accomplish the object which those who offer them have in view. The habit of smoking is most *deleterious to the young,* causing in them impairment of growth, premature manhood, and physical degradation.

In the last chapter of the work the author puts the question—"Why should a million of Englishmen be living with stomachs that only partially digest, hearts that labour unnaturally, and blood that is not fully oxidized?" He truly remarks that philosophically considered, "the existence of such a million of imperfectly working, living organisms is a natural absurdity, a picture which, to a superior intelligence observing the whole truth, and grasping it, would suggest a mania, foolish, ridiculous, and incomprehensible." But then the human mind cannot grasp the whole truth; and the million smokers accept the "friendly weed" as a remedy for evils that lie deeper than its own. "They will tell," says Dr. Richardson, "of the quiet which it brings to the over-worn body, and to the irritable and restless mind: their error is transparent and universal; but universal error is practical truth. . . . . Until we can equalize labour, and remove the call for an artificial necessity of an artificial life, tobacco will hold its place, with this credit to itself, that, bad as it is, it prevents the introduction of agents that might be infinitely worse."

The Result of Starting an Opposition Shop.—In the case of Johnson *v.* Williams, lately tried at Liverpool, Dr. Commins, for Dr. James Mercer Johnson, surgeon, the plaintiff, stated that the defendant, Benjamin Hughes Williams, was, in May 1863, engaged to manage the plaintiff's shop, in Copperas-hill, on a written condition that he should receive £1 a-week and free rent, but that he should not start any opposition shop without the plaintiff's consent. He remained in Dr. Johnson's employ until the middle of October last, when some disagreement took place, and they separated. In two or three weeks afterwards, the defendant opened a druggist's shop immediately opposite that of Dr. Johnson, and he had since attracted a great many of the customers of that gentleman to his own shop—he even standing in the door, and calling in people who were evidently going to Dr. Johnson's place of business. Previous to the opening of the new establishment, the earnings in Dr. Johnson's shop were £10 a-week, but they had since been reduced to £4 a-week; and the business, which formerly was worth £400, was now of no value whatever.—Mr. Gully, for the defendant, admitted that he had "rashly" entered into the agreement mentioned by Dr. Commins, and had as "rashly" broken it.—The learned Assessor, in summing up, remarked that the plaintiff might, under the amended act relating to this court, have prayed the court, not only for the damages which he now claimed, but for an injunction to prevent the defendant for carrying on business in the place where his shop now was. The jury gave a verdict for the plaintiff; damages £50, and £4 19s. 6d. for professional attendance on the defendant's wife and family.

THE CHEMIST AND DRUGGIST

*LONDON, MARCH* 15, 1865.

Correspondence.—All communications should be addressed to the Editor, at 24, Bow-lane, E.C.; those intended for publication should be accompanied by the real names and addresses of the writers.

Queries.—The Editor cannot undertake to attend to those which are anonymous, or to send answers through the post.

Subscription.—The subscription to the Chemist and Druggist is 5s. per annum, payable in advance. Should a receipt be required, a stamped envelope must be sent with the amount of subscription. A specimen number may be had upon application, price 6d.

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The Chemist and Druggist is published on the Fifteenth of every month, and regularly supplied direct to the Members of the Trade in Great Britain, Ireland, the Colonies, and all the principal seats of foreign commerce.

Everything intended for insertion in the current Month, must be sent in before the 10th, except Employers' and Assistants' Advertisements, which will be received until 9 a.m. on the morning previous to publication.

## THE CHEMISTS AND DRUGGISTS' BILL.

We print below the heads of the Draft Bill which was submitted to the Home Secretary, on Wednesday last, by the representatives of the United Society of Chemists and Druggists. We are forced to present our readers with the skeleton in lieu of the complete body, as our columns were nearly filled when the printed copy of the Bill reached us. In our next number this important measure wil be reproduced without abridgement.

The proposed Chemists and Druggists' Act has twenty-four sections, which are thus described in the margin :—

1. Title of Act.
2. Commencement of Act.
3. Constitution of Council. Registered Chemists and Druggists to vote for members of the Council.
4. One month's notice, by advertisement, of election of Council.
5. President and Vice-President to hold office seven years In case of death, resignation, etc., General Council to appoint successors.
6. One-third of the Council to go out of office annually.
7. In case of death, resignation, etc., of members of the Council, the other members to appoint successors for the remainder of term.
8. The Secretary of State to appoint a Commissioner to put the Act in operation. Commissioner to call a public meeting of Chemists and Druggists, by advertisement, to be held in the metropolis.
9. At such meeting, President and Vice-President, and members of the Council to be elected. In case of dispute, the Commissioner appointed to hear, and determine, and report thereon to the Secretary of State. The Secretary of State may confirm or annul the election, and order another to take place. No proceeding to be taken in any Court of Law or Equity to annul the election when ratified by Her Majesty's Secretary of State.
10. Upon such first election, the President and Council and their successors to become a corporate body.
11. A Registrar and Officers to be appointed by the Council.
12. Treasurer to be elected.
13. Council to appoint Examiners.
14. Retailers of Drugs not being qualified Physicians, Surgeons, or Apothecaries, or registered under the Medical or Pharmacy Act, to produce Certificates from Examiners as to their competency, and to be registered under this Act.
15. Chemists and Druggists, at the passing of this Act, to be registered.
16. Chemists and Druggists not entitled to recover for drugs unless they produce on trial a certificate of registration. Penalty on unqualified persons, and on employing unregistered assistants and apprentices.
17. Power for the Council to make bye-laws, to be confirmed by the Secretary of State. Power to call meetings of Chemists and Druggists.
18. Restrictions and penalty on the sale of Poisons.
19. Penalty on unqualified Chemists and Druggists.
20. Mode of recovering Penalties.
21. Certificates of registration to be given by the Registrar on application.
22. A Register of Chemists and Druggists to be kept.
23. Exemption of registered Chemists and Druggists from serving on Juries.
24. Annual Fee, and appropriation of surplus funds.

To the Act three Schedules are appended. Schedule A. enumerates the Drugs referred to in Sec. 14. Schedule B. is the form of Notice of Claim by existing Chemists and Druggists. Schedule C. enumerates the Poisons, upon the sale of which restrictions are placed in Sec. 18.

As the child is father of the man, so this Bill may be said to be the offspring of the scheme for Incorporating the Trade, suggested nearly two years ago by the Executive of the United Society. If we fail to recognise some of the features of the original proposition, it is because the measure has been reared in the healthy atmosphere of free discussion. Had the Committee adopted the advice of some critics, they would have put their crude scheme in parliamentary phraseology before submitting it to the trade. But they wisely pursued a different course; and their Bill now comes from the solicitor's hand in a form acceptable to the great body of the trade. If the Pharmaceutical Council had acted in the same way, there might never have been a "Chemists and Druggists' Bill," and their "Bill for Regulating the Qualifications of Chemists and Druggists" would have been a healthy measure, instead of a pitiable illustration of arrested development.

Mr. Gladstone is said to have defined "Deputation" as "a noun of multitude signifying many, but not signifying much." No one, however, who reads the report which we print in another column will apply this definition to the Deputation that waited upon Sir George Grey on Wednesday last. A deputation introduced by eight Members of Parliament, and comprising gentlemen from various parts of the kingdom, could not fail to make a good impression upon the Home Secretary, and we have no doubt that he will use his influence to get the Bills of the two Societies referred to a Select Committee of the House of Commons.

## MR. PROCTOR ON THE PHARMACY BILL.

In June last, Mr. Barnard S. Proctor, then a member of the Pharmaceutical Council, concluded a letter addressed to us with the remark, that a sketch of the history of the Pharmaceutical Society, from a neutral pen, would be interesting and instructive. We are of the same opinion, for we are convinced that the Society has suffered much from the misrepresentations of eulogists and detractors. Its doings have too often been viewed through the telescope of prejudice, which either magnifies or diminishes according to the way in which it is held.

If we ever get an impartial history of the Pharmaceutical Society, the independent position taken by Mr. Proctor, while on the Council, will be noticed. At a time when plain speaking was quite out of fashion in Bloomsbury-square, this gentleman expressed his opinions fearlessly, even though they might be opposed to those held by the three or four influential men who virtually governed the Pharmaceutical body. When the Conservative policy of the Council was gradually congealing into a mere obstructive one, he dared to advocate a radical reform in the constitution of the Society.

Some of Mr. Proctor's brother councillors were probably shocked at his advanced views, but "outsiders" were simply tantalized by them. They were undoubtedly liberal, but they did not go far enough. Though a radical in the council, Mr. Proctor has always been a strong supporter of the Pharmaceutical Society. He alone took up arms to defend the politics of the Council, and in our correspondence columns he fairly held his ground against two or three leading members of the United Society. Not content with the work of defence, he occasionally assumed the offensive, and made some ugly lunges at the United Society. A few of his thrusts told, but most of them were successfully parried by Messrs. Wade and D'Aubney. In this paper fight, as well as in his communications to the *Pharmaceutical Journal*, Mr. Proctor could always be recognised as a warm friend of the "outsiders," and at the same time, a staunch upholder of his Society. While admitting that the profession to which he belongs ought to be elevated, he refused to support any scheme for its elevation that did not emanate from the Pharmaceutical body.

In the *Pharmaceutical Journal* for the current month, we find a letter from Mr. Proctor, which ought to be read by all who believe the proposed Pharmacy Bill to be a good measure. It is the most injurious bit of criticism that the unlucky Bill has called forth, and had it been forwarded to the *Journal* by an obscure member of the Society, it would probably have been rejected by the Editor. The many demands upon our space this month prevent us reprinting the entire letter, but we will endeavour to give our readers its essence.

Having claimed as his own certain auonymous opinions which the editor of the *Journal* had held up to be unworthy of credence, Mr. Proctor argues that "the only step practically valuable to the public, and permanently elevating to the trade, will be to place the *trade*, and not the name, under suitable regulations." A restriction on the title of "chemist and druggist," such as the Pharmacy Bill proposes, would, he thinks, produce a new class of drug sellers, just as the restriction placed upon the name "apothecary" gave rise to the present race of chemists and druggists, who do the work of the old apothecaries. He then brings forward facts to prove that the dispensing of prescriptions is not an important branch of every druggist's business. "There is not one country chemist in a hundred," he says, "who could live by dispensing. There is not one in a hundred who could not live almost as well as at present without it."

The eighth, ninth, and tenth paragraphs of Mr. Proctor's letter contain his most severe animadversions on the Bill, and must be reprinted without abridgment.

"I have not succeeded in convincing my fellow-members of Council that something better than the proposed Bill could be accomplished, and probably accomplished with less difficulty than the Bill in its present form; and in retiring from the governing body, I wish to convey to my electors that, though I have not been successful, I have not been unthinking in this matter. I have objected to the Bill in its present state, because I think it will leave the public unprotected, and the practice of the drug trade almost unaltered; because it will still leave the necessity for a Poison Bill, and the probability of our having to oppose Poison Bills of an impracticable or obnoxious character. I have objected to the Bill, because it is felt to be unfair towards some of those who do not belong to our Society, registering them on a list inferior to that occupied by the members of the Pharmaceutical Society,—the distinction being nominally, but not really, one of qualification; the inferior register containing many able and well-informed men, and the superior containing, as it unavoidably will do for years to come, the names of some who, as far as regards qualifications, are unworthy of the position. Thus it will at once do an injustice to the public and to the non-pharmaceutical members of the trade.

"Besides the objections to having the Bill *passed* in its present form, there are objections to *having it brought forward* in its present form: because it is likely to rouse the opposition of those who belong to the United Society or to no society; because it will be wanting in that sympathy which a Poison Bill would meet with, both at the hands of the Legislature and the public, and because it gives some grounds for the assertion that it is a selfish measure, having party objects in view. Nothing is so sure to deprive us of public sympathy and support as an apparent desire to pass a public Bill for our own purposes.

"You have said that the Council have adopted a middle course, avoiding both extremes. It must be remembered that good as well as evil is often avoided by this course. The Society will not gain the numerical strength which the liberal policy would have ensured, nor will it effect the desirable reformation which the stringent measure was calculated to bring about. It is also to be remembered that these extremes are not incompatible. A measure *must* be liberal towards existing interests, if it is to be stringent in its future action. Both extremes should have been brought into full play, the utmost liberality towards all now exercising the calling, and the greatest practicable stringency to prevent the future practising of the trade by incompetent persons. Such a proceeding would ensure the hearty support of all parties concerned; and if, as has been suggested, Government objected to our again admitting unqualified men to the register of pharmaceutical chemists, that is a point which might be settled in the Committee of the House of Commons, leaving us at least the credit of having done what we could in a liberal and neighbourly spirit."

Mr. Proctor thinks that a Bill for regulating the trade ought to rest upon the simple point of requiring *all* dealers in poisons, enumerated in a schedule, to pay to Government an annual sum for a license to sell such articles. Up to a certain date, the license would be granted to any one applying and paying for the same, and this license would be renewable during the life of the holder; but new licenses would not be granted to any one, without his producing evidence of having passed an examination before some legally constituted board.

In calling attention to Mr. Proctor's views, we trust that we may not prevent his re-election to a seat in the Council. We know that many members of the Pharmaceutical Society will read this article with much the same sort of feeling that the loyal Unionists of America would experience on perusing a panegyric upon General Sherman in the *Richmond Whig*. Still, we believe, that Mr. Proctor is the interpreter of the views of a large number of pharmaceutists, who will take care that his place in the Council shall not be filled by another. A little leaven does wonders.

WHOLESALE AND EXPORT DRUG COMPANY (LIMITED).—Many of our readers will be pleased to learn that the Directors have secured the services of Mr. William Charity, for the management of the warehouse, and the general business of the Company. Mr. Charity has held a similar position for the last fourteen years with the eminent firm of Messrs. Barron, Harveys, and Co., wholesale druggists. The following note has just been received:—

"6, Giltspur-street, City, E.C.

"Mr. Charity presents his compliments to the Editor of the CHEMIST AND DRUGGIST, and requests him to state, that, in consequence of the numerous letters he has received from persons requiring situations, it is utterly impossible for him to reply to all, and that applications ought to be made in writing to the Secretary, who would lay them before the Directors of the Company.

"March 11, 1865."

THE FUTURE WORK OF THE MEDICAL COUNCIL.—The *Lancet* still clings to the idea that the Medical Council ought to govern the chemists and druggists. In an article published last Saturday, we find the following passage:—"What is the future work of the Council? We specially direct its attention to the present most unsatisfactory state of the law relating to pharmacy in this country. The Pharmaceutical Society—a most admirable institution—has an honorary, rather than an obligatory position. So-called chemists and druggists, neither licensed by the Hall, nor qualified by the Pharmaceutical Society, compound medicines, and, in many instances, regularly prescribe. The excellent and stringent provisions of the Irish Apothecaries' Company permit of no such practice. Their representative, when he tendered his opposition to any interference of the Medical Council in this matter, could not have known the urgent necessity existing on this side of the Channel for some supervision and restraint, whereby the compounding of physicians' prescriptions and the dispensing of medicines may be limited to those not entirely ignorant of the commonest principles of chemistry or of the qualities of drugs—a knowledge of which the Irish apothecaries justly hold to be indispensable for such practices. No future legislation will be complete if it be negligent in this particular."

### A REVIEW OF THE

# BRITISH PHARMACOPŒIA.

BY J. C. BRAITHWAITE AND J. C. BROUGH.

## XIII. NEW AND ALTERED PHARMACEUTICAL FORMULÆ.

### LOZENGES.

Directions for the preparation of these medicaments have hitherto been found only in the Pharmacopœia of the E. College, where they have long been officinal. The last edition of that work contained formulæ for as many as ten, of which three, in a slightly modified form, have been transferred to the pages of the Ph. Brit. Directions for the preparation of three new Lozenges have also been introduced, so that there are now six officinal Lozenges.

As long as it is found desirable to administer medicaments, particularly the more active ones, in the form of Lozenges, directions for their preparation are fitly included in the Pharmacopœia. All must admit that Lozenges containing Morphia, Opium, or Bismuth belong more properly to the province of the Pharmaceutist than that of the Confectioner.

Trochisci Acidi Tannici. — *Lozenges of Tannic Acid (Tannin Lozenges).*—This is one of the new formulæ. The Lozenges are composed of Tannic Acid, Sugar, Tincture of Tolu, and Gum Arabic, and each contains half a grain of Tannic Acid.

Trochisci Bismuthi.—*Bismuth Lozenges.* This is another of the new formulæ; the ingredients employed are White Bismuth, Carbonate of Magnesia, Precipitated Carbonate of Lime, Refined Sugar, Gum Arabic, Oil of Cinnamon, and Water. Each Lozenge contains two grains of White Bismuth. It is said to be a nice and pleasant way of administering this medicine. Dose, 2 Lozenges.

Trochisci Catechu.—*Catechu Lozenges.* This formula is also new. The ingredients are Pale Catechu, Refined Sugar, Gum Arabic, Tincture of Capsicum, and Distilled Water. Each Lozenge contains three-quarters of a grain. Dose, 1 to 3 Lozenges.

Trochisci Morphiæ.—*Morphia Lozenges.* This is the formula of the E. College, slightly modified. The Lozenges are composed of Hydrochlorate of Morphia, Tincture of Tolu, Refined Sugar, Gum Arabic, Mucilage of Gum Arabic, and Water; and each Lozenge contains one thirty-sixth part of a grain of Hydrochlorate of Morphia. Dose, 1 or 2, occasionally, for cough.

Trochisci Morphiæ et Ipecacuanhæ.—*Morphia and Ipecacuan Lozenges.*—This is another of the E. formulæ. The ingredients employed are the same as in the last described, except that some Ipecacuan is added. Each Lozenge contains one thirty-sixth of a grain of Hydrochlorate of Morphia, and one-twelfth of a grain of Ipecacuan. Dose, 1 or 2, occasionally, for cough.

Trochisci Opii.—*Opium Lozenges.*—This is the formula of the E. College, somewhat modified. The Lozenges are compounded of Extract of Opium, Tincture of Tolu, Refined Sugar, Gum Arabic, Extract of Liquorice, and Distilled Water. Each Lozenge contains one-tenth of a grain of Extract of Opium. Dose, 1 or 2 Lozenges.

*Omissions.*—Trochisci Acaciæ, Trochisci Acidi Tartarici, Trochisci Cretæ, Trochisci Glycyrrhizæ, Trochisci Lactucarii, Trochisci Magnesiæ, Trochisci Sodæ Bicarbonatis.

### OINTMENTS.

Several changes have been made in this class of medicinal agents, which, on the whole, may be regarded as an improvement on those contained in former Pharmacopœias. The Ph. Brit. contains twenty-eight formulæ, just one more than was comprised in the Pharmacopœia of the L. College. Of these, five are entirely new formulæ, twenty-one are modifications of those contained in the Pharmacopœias of the three Colleges, and two were formerly included under a separate class, called "Cerates," which have now been very properly merged into this group; as there is no good reason why any distinction should be made between Ointments and Cerates. Sixteen, formerly officinal in the different Colleges, have been omitted. Of these, ten were included in the Ph. L., four in the E., and five in the D. Those made with the Vegetable Alkaloids are all uniform, each containing eight grains of Alkaloid to the ounce of Lard.

Unguentum Aconitiæ.—*Ointment of Aconitia.* As this preparation has for some time been in extensive use, an authorized formula has been very properly included in the Ph. Brit. It contains one part in every sixty parts.

Unguentum Antimonii Tartarati.—*Ointment of Tartarated Antimony.* This formula is similar to that of the L. College; but simple ointment is substituted for Lard, and it has undergone a change of nomenclature, its old name being "Antimonii Potassio Tartratis." It contains one part of Tartarated Antimony in every five parts, which is nearly twice as much as that contained in the ointment of the D. College.

Unguentum Atropiæ.—*Ointment of Atropia.* This is also a new preparation containing one part of the alkaloid in every sixty parts. It is a much cleaner and nicer preparation than the Unguentum Belladonnæ, and is said to be quite as effective. According to Mr. Squire,[*] 30 grains may be used at one application.

Unguentum Belladonnæ.—*Ointment of Belladonna.* This ointment is prepared like that of the L. College, but is stronger. Neither the E. nor D. contained any formula. Mr. Squire[†] remarks—"This is not a clean ointment; half to one drachm of Liniment of Belladonna to one ounce of Lard answers well, and does not colour the skin." And a writer in the *Lancet* has expressed his surprise that it should have been retained, since the Unguentum Atropiæ is quite as effective. It contains one part of Extract of Belladonna in every six and a half parts.

Unguentum Calomelanos.—*Ointment of Calomel.* A short notice of this preparation has already appeared.[‡] It contains one part of Calomel in every six and a half parts.

Unguentum Cantharidis.—*Ointment of Cantharides.* This is a modification of the formula of the L. College, which directed it to be made with Cantharides, Distilled Water, and Cerate of Resin. The Ph. Brit. directs it to be made with Cantharides, Yellow Wax, and Olive Oil; the Resin is therefore discarded. It contains one part of the active portion of the Cantharides in every eight parts, and is employed to promote discharge from a blistered surface.

Unguentum Cetacei.—*Ointment of Spermaceti.* The formula of the L. College has been here adopted, a slight increase having been made in the quantity of Wax. The D. College substituted prepared Lard for the Almond Oil. The E. Pharmacopœia contained no formula. Mr. Squire[§] states that he finds seventeen instead of twenty ounces of oil sufficient in summer. It contains one part of Spermaceti in every five parts.

Unguentum Cocculi.—*Ointment of Cocculus.* This is a formula extracted from the Pharmacopœia of the Scotch College. According to Dr. Christison it is one of the best applications for the treatment of ringworm of the scalp. It should be applied night and morning, and washed away with soap and water at least once a day. It is likewise used in chronic skin diseases, and to destroy pediculi. Neither the L. nor D. contained any formula, and there are some who are of opinion that it might as well have been excluded from the Ph. Brit. It contains one part of Cocculus in every six and a half parts.

Unguentum Creasoti.—*Ointment of Creasote.* This most nearly resembles the formula of the D. College than which it is a trifle weaker. Simple ointment (made of White Wax, Almond Oil, and Lard) is substituted for the ointment of White Wax (composed of White Wax and Prepared Lard) ordered in the D. formula. It is a stronger preparation than that of the L. and E. Colleges, and contains one part of Creasote in every nine parts. It is employed in mild cases of ringworm.

Unguentum Elemi.—*Ointment of Elemi.* This is the same as the D. formula, excepting that simple ointment again replaces ointment of white wax. The L. formula directed Elemi, Turpentine, Suet, and Olive Oil to be employed. No formula was given in the Pharmacopœia of the E. College. It contains one part of Elemi in every five parts, and is employed to keep open issues and setons.

Unguentum Gallæ.—*Ointment of the Gall-nut. Ointment of Galls.* This is also a modification of the Irish formula, with simple ointment substituted for ointment of white wax.

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[*] "Companion to the Pharmacopœia," Second Edition, p. 37.

[†] *Ibid.*, p. 42.

[‡] Chemist and Druggist, vol. v., p. 110.

[§] "Companion to the Pharmacopœia," Second Edition, p. 66.

It is, however, somewhat stronger, as it contains about one part of Galls in every six and a half parts, whilst that of the D. College contained one part in every eight. The L. and E. Colleges gave no formula for the simple ointment. It is a useful application to hæmorrhoids.

Unguentum Gallæ cum Opio.—*Ointment of the Gall-nut, with Opium.* (*Ointment of Galls and Opium.*) This is made by mixing thirty-two grains of Opium with one ounce of the Unguentum Gallæ, and contains one part of Opium in about every fourteen and two-third parts. It is used as an application to painful hæmorrhoids. It corresponds to the "Unguentum Gallæ Compositum" of the L. College and the "Unguentum Gallæ et Opii" of the E., both of which were composed of powdered Galls, powdered Opium, and Lard.

Unguentum Hydrargyri.—*Ointment of Mercury.* This is the formula of the L. College, having the proportion of Prepared Lard and Suet slightly increased. It contains nearly one part of Mercury in every two parts.

Unguentum Hydrargyri Ammoniati.—*Ointment of Ammoniated Mercury.* In this formula simple ointment is substituted for the Lard employed in the preparation of the "Unguentum Hydrargyri Ammonio-Chloridi" of the L. College, and the "Unguentum Precipitati Albi" of the E. It contains one part of Ammoniated Mercury in every seven and three-quarter parts, or nearly one in every eight. No formula is given by the D. College.

Unguentum Hydrargyri Iodidi Rubri.—*Ointment of the Red Iodide of Mercury.* The D. College directed this ointment to be prepared by mixing one drachm of Red Iodide of Mercury with eight drachms of ointment of white wax; it therefore contained one part of the Red Iodide in every eight parts. The Ph. Brit. orders sixteen grains to be incorporated with one ounce of simple ointment, consequently it is a much weaker preparation, containing only one part of the Red Iodide in every twenty-eight parts. It is said to be a most effective aplication for bronchocele, and a good application for warts.

Unguentum Hydrargyri Nitratis.—*Ointment of Nitrate of Mercury.* We have already referred to this preparation[*]. If Nitric Acid, sp. gr. 1·42, is employed, half as much again will be required. The ointment contains one part of the nitrate in every fourteen and three-quarter parts. The proper heat for completing the chemical action of the Nitrate, Oil, and Lard is from 170° to 180° F., which, we think, should have been specified.

Unguentum Hydrargyri Oxidi Rubri.—*Ointment of Red Oxide of Mercury.* A notice of this ointment has already appeared.[†] It contains one part of Red Oxide in every eight parts nearly. It is stimulant and detergent. Mr. Squire[‡] states that in order to make this ointment perfectly smooth, the oxide should be first well rubbed in a warm mortar with a little of the ointment, and the remainder added gradually.

Unguentum Iodi Compositum.—*Compound Ointment of Iodine.* This has been already noticed in a former number.[§] It contains one part of Iodine and Iodide in about every thirty-one parts.

Unguentum Plumbi Carbonatis.—*Ointment of Carbonate of Lead.* This resembles the formula of the Scotch College, but it is not so strong; the E. containing one part of Carbonate in every six parts, whilst the Ph. Brit. includes only about one in every eight parts. The L. College gave no formula.

Unguentum Plumbi Subacetatis.—*Ointment of Subacetate of Lead.* This is the old Ceratum Plumbi Compositum of the L. College now transferred to the Ointments. White wax is, however, now substituted for yellow. It contains one part of the Subacetate in every five and three-quarter parts nearly.

Unguentum Potassii Iodididi.—*Ointment of Iodide of Potassium.* This formula closely resembles that of the L. College, but is a little stronger. It contains one part of the Iodine in every eight and a half parts.

Unguentum Resinæ.—*Ointment of Resin.* This is a substitution for the Ceratum Resinæ of the L. College, which was composed of Resin, Bees' Wax, and Olive Oil. In the formula of the Ph. Brit., Resin, Yellow Wax, and simple ointment (composed of White Wax, Prepared Lard, and Almond Oil) are employed. It contains one part of Resin in every three and a half parts, and is a stimulant dressing for indolent ulcers.

Unguentum Sabinæ.—*Ointment of Savin.* This formula is much the same as that of the L. College. It contains one part in every three and three-eighth parts nearly, and is employed for keeping up suppuration from a blister or issue by preventing it from healing, and for application to indolent ulcers.

Unguentum Simplex.—*Simple Ointment.* A formula for this preparation appeared in the Pharmacopœia of the E. College, which directed it to be prepared by melting White Wax in Olive Oil. The ointment of the Ph. Brit. is a compound of White Wax, Prepared Lard, and Almond Oil, and replaces the Lard of the L. and E. Colleges, and the "Unguentum Ceræ Albæ" of the D. in the preparation of several of the ointments. No formula was given for its preparation by the L. and D. Colleges. It contains one part of White Wax in every four parts.

Unguentum Sulphuris.—*Ointment of Sulphur.* This formula corresponds to that of the E. and D. Colleges. The L. is double the strength. It contains one part of Sulphur in every five parts.

Unguentum Terebinthinæ.—*Ointment of Turpentine.* No formula has hitherto been given for this preparation in the Pharmacopœias of either of the three Colleges; a process is, however, included in that of Austria, but it differs in composition from that of the Ph. Brit. It may, therefore, be considered as a new preparation. It is composed of Oil of Turpentine, Resin, Yellow Wax, and Prepared Lard, and contains one part of Turpentine in every two and one-eighth parts.

Unguentum Veratriæ.—*Ointment of Veratria.* This is a new preparation, and is composed of Veratria, Prepared Lard, and Olive Oil. It contains one part of Veratria in every sixty parts.

Unguentum Zinci Oxidi.—*Ointment of Oxide of Zinc.* Termed "Unguentum Zinci" in the Pharmacopœia of the three Colleges. The formula of the Ph. Brit. most resembles that of the D. College; Simple Ointment being, as usual, substituted for that of White Wax. It contains about one part of Oxide of Zinc in every six and a half parts.

*Omissions.*—Unguentum Æruginis, E. Unguentum Cupri Subacetatis, D.; Unguentum Infusi Cantharidis, E.; Unguentum Ceræ Albæ, D.; Unguentum Conii, L.; Unguentum Hydrargyri Iodidi, L.; Unguentum Hydrargyri Nitratis Mitius, L.; Unguentum Opii, L.; Unguentum Picis, L.; Unguentum Picis Liquidæ, L., E., D.; Unguentum Plumbi Acetatis, E, D.; Unguentum Plumbi Compositum, L.; Unguentum Plumbi Iodidi, L., D.; Unguentum Sambuci, L.; Unguentum Sulphuris Compositum, L.; Unguentum Sulphuris Iodidi, L.

### WINES.

No addition has been made to this Class of Preparations. Four, peculiar to the Scotch College, have been omitted, and the remainder have been more or less modified by a change of nomenclature, composition, or mode of preparation.

Vinum Aloes.—*Wine of Aloes.* This formula is very nearly the same as that of the E. College, but rather less Ginger and Cardamoms are employed. No formula is given in the D. It contains one part of the active matter of the Aloes in every twenty-six and three-quarter parts. Dose, 1 to 2 drachms.

Vinum Antimoniale.—*Antimonial Wine.* This has undergone a change in nomenclature, the title of the E. College having been adopted. Both the L. and E. preparations are of the same strength, containing one part in every two hundred and forty parts, or one quarter of a grain in each fluid drachm. Dose, 15 to 60 minims, as a diaphoretic in Saline mixtures.

Vinum Colchici.—*Wine of Colchicum.*—This is almost identical with the formulæ of the L. and E. colleges, but differs in the marc after the first maceration and expression being treated with sufficient Sherry to make up one pint. This having been pressed and strained is added to the first portion obtained. It contains one part of the active matter of the Colchicum in every five parts. Dose 20 to 40 minims.

Vinum Ferri.—*Wine of Iron.* Although the old name is retained, this preparation differs so from that of the L. College that it may almost be looked upon as a new preparation. It was formerly prepared by digesting Iron Wire in Sherry Wine for thirty days and straining. The Ph. Brit.

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[*] Chemist and Druggist, vol. v., p. 110.

[†] *Ibid.*

[‡] "Companion to the Pharmacopœia," Second Edition, p. 119.

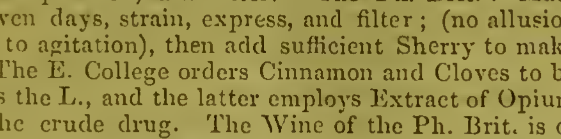
[§] Chemist and Druggist, vol. v. p. 43.

directs Tartarated Iron to be dissolved in Sherry Wine. Mr. Squire* observes "the Tartarated Iron dissolves with difficulty in Sherry, which is already saturated with Bitartrate of Potash; indeed, it will not *all* dissolve. The preparation is not nearly so satisfactory as that of the L., made with Sherry and Iron Wire, and far inferior to the *old Steel Wine*, made with Malaga and Iron Wire." A writer in the *Lancet*,† remarks: "This is an unfortunate attempt at refinement. It has been much the fashion to take old-established medicines, to dogmatize upon their constitution, and then to substitute for them a highly scientific imitation. The effect is not always happy, and it is not so in this instance. Vinum Ferri made in this way, is constantly depositing; so that if the object were to make an Iron preparation of constant composition, that object will not be attained. Neither is it a representative of the old Wine. The Iron in Potassio-tartrate of Iron is entirely in a state of peroxide, which is not the case with the old Vinum Ferri, the latter containing a considerable quantity of protoxide. Moreover, the whole of the Potassio-tartrate will not dissolve, and the Wine will contain all the Bitartrate it originally possessed uncombined with any Iron. Having had an opportunity of comparing the old and the new Wines, we must say that we decidedly prefer the old." At the Bath Conference, Messrs. Deane and D. Hanbury condemned the new formula, but Mr. Abraham spoke in its favour. It should contain, if all dissolved, one part of Tartarated Iron in one hundred and sixty parts, or one grain in each drachm.

VINUM IPECACUANHÆ.—*Wine of Ipecacuan.* This process is similar to that of the three Colleges, but the product is about twenty-five per cent. weaker. We observe that we are here directed to macerate for seven days, with *occasional agitation*, and to the best of our recollection this is about the only place among the Galenical preparations where agitation is *mentioned*, although it is obviously as requisite in other cases, as for instance, in many Tinctures. It contains one part of the active matter of the Ipecacuanha in every twenty parts. Dose as an expectorant, etc., 5 to 30 minims; as an emetic, 3 to 6 drachms.

VINUM OPII.—*Wine of Opium.* This is much the same as the process of the D. College, the latter, however, directs us to macerate for fourteen days, with occasional agitation; strain with expression, and filter.—The Ph. Brit.: Macerate for seven days, strain, express, and filter; (no allusion being made to agitation), then add sufficient Sherry to make one pint. The E. College orders Cinnamon and Cloves to be used as does the L., and the latter employs Extract of Opium instead of the crude drug. The Wine of the Ph. Brit. is of the same strength as Tincture of Opium, containing one part of the active matter of the Opium in every fourteen and one-third parts. Dose 15 to 30 minims.

*Omissions.*—Vinum Antimonii Potassio-Tartratis, L. (now Vinum Antimoniale); Vinum Gentianæ, E.; Vinum Rhei, E. D.; Vinum Tabaci, E.; Vinum Veratri, L.



## TRADE STATISTICS.—THE CHEMISTS AND DRUGGISTS' BILL.

TO THE EDITOR OF THE CHEMIST AND DRUGGIST.

SIR,—The "non-pharmaceutical" members of the trade may now be satisfied that the United Society is thoroughly recognised as a representative institution, and is placed on an equal footing with that of Bloomsbury. The Rt. Hon. the Home Secretary has again received it in deputation, accompanied by no fewer than eight influential members of the House of Commons, and has been thoroughly informed that the Pharmaceutical Society represents but a section of the trade.

The druggists of Glasgow, of Sheffield, of York, and other places, have compared the two Bills, and passed resolutions which have been made known to the Executives of the two Societies; and, in consequence, the Pharmaceutical is unable any longer to ignore the existence of a society, numerically stronger than itself. It has published reports of these meetings, and so lowered its tone that, instead of assuming to be the representative of the whole trade, it labours very hard to show that is is not an insignificant portion, and that what it lacks in number it makes up in intelligence and wealth. To prove this, it takes the census of 1861, and state that there are registered as chemists and druggists in England and Wales only, 12,638 persons of twenty years of age, and upwards; and that because in London the registry gives one druggist to every 3,500 of the population, there would be about 5,700 in business for themselves; and that, as there are 2,000 members of the Pharmaceutical Society, they, as a matter of calculation, would represent a third of the trade.

This is a very ingenious way of arguing; but I will endeavour to prove that it is entirely fallacious, and that the trade of the United Kingdom numbers nearer 20,000 than 13,000, and that the Pharmaceutical does not represent more than one-tenth instead of one-third of the whole. It will be observed that the Pharmaceutical writer, whilst giving the numbers of his own Society as 2,000, includes those of Scotland, Ireland, the colonies, and abroad; but, in taking the number of the trade, he gives only those of England and Wales. Now, surely, if England and Wales number 12,638, Scotland, Ireland, and the colonies would double that number; and if one Society calculates them, the other ought to do the same. I plead guilty of being one of those persons who, in 1861, stated that the entire trade numbered over 30,000 in the United Kingdom; and I cannot permit this statement to be represented as entirely "absurd." Information was obtained from the library of the British Museum, that there were 16,000 returned as chemists in the United Kingdom, and it was not thought inconsistent to add as many assistants, apprentices, &c.; and whatever alteration the last census has made, I do not believe that it will reduce the numbers below 20,000.

I decline to accept the "reliable data furnished by the Registrar-General in the census returns." It may be quite true that for England and Wales 12,638 only are returned as chemists; but it is well-known that in London and the larger towns that one shop in every three, although, for all purposes of business, a chemist and druggist's, the owner is an apothecary, and returns himself on the census paper "surgeon." This adds considerably to the number of chemists not accounted for. Each of these gentlemen employs one or more assistants, at the retail and dispensing; yet the surgeon enters them on the paper as assistants, and they thus pass as *surgeon's* assistants. There are also a large number living at private surgeries, and are returned in the census in like manner. There are, then, warehousemen, travellers, clerks, and others, who by apprenticeship are chemists, although, for the time being, are otherwise occupied.

I will then suppose there are 12,638 chemists registered in England and Wales; and then add those wrongly returned as surgeons and assistants, of which the Pharmaceutical-Society takes no account; then add the chemists of Ireland and Scotland; and, to follow example, include those of the colonies as well; and I think I shall be fairly justified in placing the number at not less than 20,000; and if so, the Pharmaceutical Society is but a section of the trade. But then, the pharmaceutists argue, we represent a principle, and acquire influence through it; and that principle has for its base a qualification. Some, to acquire this influence, have subscribed annually; and as many as 800 have, to their credit, passed an examination for it. But that does not qualify them to assume superior knowledge over those who do not belong to their Society.

This opinion is shared by many. Mr. Proctor, who is the representative of a liberal minority in the Society, has not hesitated to condemn the selfish and illiberal policy of the governing body from which he now retires. And, much as we may regret his occasion to do so, he is deserving our esteem for so firmly representing the rights of outsiders. No one will refuse credit to the Council for having done all in their power for their own members; but that these members do not constitute "the trade" is a point the Council cannot be made to understand. They will find it hard work to make outsiders acknowledge the "zeal and consistency with which they have watched over, fought for, and maintained the interests, not only of their own members, but of those of their brethren who have not been associated with them."

The druggists of York have received their answer, and they know what to expect from the Pharmaceutical Council. Is it not a lesson to them and others, to stand up for themselves as independent citizens, rather than to cling to the skirts of a body that disowns them? Does it not teach them that the only way to attain the object they have in view is to work all together, to support the Bill of the United Society? This Act is now complete, and is in the hands of Government. It is framed on a broad principle, recognising all existing interests, as well as the privileges of the Pharmaceutical Society. It contains a practical form of Poisons' Bill, which, while it will prevent incompetent persons from dealing in deadly drugs, places no restriction on the simple medicaments in constant demand. It prevents unqualified persons entering the trade, but gives ample opportunity for any tolerably-educated person becoming a member. And it makes the whole trade a self-governing body.

Having thus raised the character of the druggist beyond dispute, it will be optional whether he takes a higher degree, and obtains the dignity of a pharmaceutist. The druggist, whose business is that of a practical tradesman, will be content with our certificate, and the public will be secured against incompetent dispensers.

I am, Sir,
Yours obediently,
JOHN WADE.

98, York-street, Westminster, S.W., March 9, 1865.

## THE PHARMACEUTICAL MEMORIAL.

TO THE EDITOR OF THE CHEMIST AND DRUGGIST.

SIR,—As the Local Secretary of the Pharmaceutical Society in Hull is accused of obtaining signatures to the proposed Pharmacy Bill, at the expense of truth and honour, in your journal of last month, may I (the Local Secretary) be permitted through your journal to say that that statement is not true. I dare venture to say, notwithstanding the imputation of duplicity and falsehood, that I could get all the signatures over again, with the exception of one or two; and they are not worth having, simply because the parties have no mind of their own, as may be proved by signing, of their own free will, first the Pharmacy Bill, and then, in a day or two after, the Bill of the United Society.

There are other statements made in "The Address of the Executive Committee to the Trade," respecting Hull and my name, which are equally untrue, but which now I have no time to refute.

Trusting you will favour me by inserting this in your next journal,

I am, Sir, yours obediently,

Market Place, Hull, F. EARLE.

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* "Companion to the Pharmacopœia," Second Edition, p. 105.

† March 26, 1864, p. 362.

## "BAUR AND FURNELL."

TO THE EDITOR OF THE CHEMIST AND DRUGGIST.

SIR,—Noticing a paragraph in your edition of February 15th, apparently directed against us, we beg to state that we have never had any transactions with a party named Funnell; that we have no correspondent in King's-road, Brighton; and that our business is not that of wholesale druggists. Pending our investigations, we will thank you to publish this notice, and are, Sir,

Yours respectfully,
R. BAUR & Co.

City, February 28, 1865.

[The paragraph referred to was taken from a report that appeared in either the *Brighton Observer* or the *Brighton Herald*. We have not been able to obtain copies of these papers, but in the *Brighton Gazette* of January 19 we find the following report:—

"A DISPUTED ACCOUNT.

"RUDOLPHUS BAUR (trading as Baur and Company) *v.* W. H. FUNNELL. This action was brought to recover the sum of 7s. 3d., the balance of an account. It appeared from the evidence of the plaintiff that he had supplied goods to the defendant, a chemist in the Queen's-road, to the amount of £1 12s. 3d. Defendant had sent up a post office order for 25s., but disputed the remainder of the account, and they were compelled to summon him for the balance. The defendant stated that he had deducted from the bill the amount of the packing case, and the price of the post-office order, and that he had sent up some postage stamps, which were returned to him. He had never received any reply to the receipt of the post-office order, or the packing case. The plaintiff stated that those stamps were sent after the summons was issued. After a good deal of conflicting testimony, his Honour found a verdict for the defendant, being of opinion that he had paid even more than the amount of the bill."

Though the name and address of the defendant in the action appear to have been incorrectly given in our paragraph, the fact that a chemist in Brighton has obtained a verdict against a Mr. R. Baur is beyond dispute. If we have misrepresented the case at the Brighton County Court, we shall be happy to publish an authentic report.—ED. C. and D.]

## LINIMENTUM BELLADONNÆ, P.B.

TO THE EDITOR OF THE CHEMIST AND DRUGGIST.

SIR,—This useful preparation for the relief of neuralgic pain is first noticed in a report of the transactions of the Pharmaceutical Society, at a meeting held in December, 1862 (*vide* "Pharmaceutical Journal," new series, Vol. IV., p. 290), having at that time been under discussion, in consequence of a little professional misunderstanding caused by a physician specifying the liniment by the words "Pharm. Brit.," before the appearance of that work. From the remarks of Mr. Squire as to its history and origin, I extract the following:—

"About two years ago, when planting out Belladonna, he had a large quantity of spare roots, for which he had no use but to prepare Atropine. His son suggested that an alcoholic solution of the root would make an excellent external application. Accordingly it was mentioned to several physicians, who prescribed it in the place of extract, and not only was it found to be equally effective, but far preferable to the extract in cleanliness. Being thus assured of its advantages, he recommended it as one of the preparations for the British Pharmacopœia; and the Committee adopted it, but made an addition."

On the publication of the Pharmacopœia, we found that addition to be Camphor, the formula being as follows:—Powdered Belladonna Root, 20 ozs.; Camphor, 1 oz.; Rectified Spirit, 30 fl. oz., or q. s. Macerate the root with a portion of the spirit for seven days, then percolate into a receiver containing the Camphor, until it measures one pint.

Mr. Squire writes (Companion to Pharmacopœia, p. 34), "A new preparation four times the strength of the extract of the leaves and stalks, prescribed with equal parts of Soap Liniment, or Compound Camphor Liniment, an excellent topical application for neuralgic pain." He also adds a formula for Lin. Belladonnæ et Chloroformi, in which Chloroform is used as the menstruum.

In January, 1864, consequently before the publication of the then long looked for Pharmacopœia, I introduced the preparation to a physician resident here, who prescribed it for a gentleman suffering from neuralgia—I presume, of the branches of the great sciatic nerve. As an external application he ordered the following liniment:—℞ Lin. Belladonnæ; Tinct. Opii; Æther. Chloric. āā p. æ. m. f. Linimentum.

The patient obtained great relief from its use, and during an interval necessary to procure a further supply of the Belladonna Liniment, a powerful preparation of Morphine and the Tincture of Opium was substituted; but in his opinion did not afford that relief so gratefully received from the one containing Belladonna. The efficacy of this liniment is, doubtless, due to its holding in solution Atropia. Mein, in producing that alkaloid, obtained 20 grains from 12 ounces of the root, exhausting it by Alcohol, sp. gr. ·822.

The rectified spirit of the B. P., or what would more likely be used, ordinary spirit of wine, usually ·835, may be considered sufficiently strong for that purpose. If percolation be efficiently performed, and taking the result of Mein, as showing the average amount of Atropia contained in Belladonna, then each ounce of the liniment of the B. P. being equivalent to the same quantity of the root, we get as a proportionate result 1¾ gr. of the alkaloid in each fluid ounce. So far the liniment. But, as we are often reminded by the pharmaceutical press, that being the means of communication between the physician and patient, it is our duty to investigate the therapeutic power of drugs, and, if possible, ascertain by what means certain medicines produce stated effects in the human body. Let us very briefly consider the agency of Belladonna in assuaging the tortures of neuralgic pain.

It is scarcely necessary to remind your readers that neuralgia, as its name indicates, is peculiarly a disease of the nervous system, and that it usually affects the branches of the fifth and seventh pair of nerves, and the sacro-sciatic nerve. The former, in its old character of tic douloureux, or the dolor crucians faciei of Fothergill, often comes before the notice of the chemist, and the multifarious preparations advertised as specifics (?) for its cure, occasionally produce an extra paroxysm of pain in that very sensitive *nerve*—the pocket. Leaving the causes and symptoms (excepting such of the former as may concern the question at issue) to their legitimate sphere, the science of general pathology, I proceed to notice the peculiar form of action of the remedy under discussion. Classed by medical writers among the narcotics, they seem to agree in awarding it the palm as a drug purely anodyne, possessing the power of relieving pain without exerting a distinctive sedative influence.

Dr. Thompson says (Mat. Med., p. 432), "Perhaps it has more claim to the title anodyne than any other of the narcotics." And Royle and Headland, in their admirable text book, writing on the anodynes, observe (Mat. Med., p. 784), "Of these, some, as Belladonna and Stramonium, induce sleep only from relieving pain, and are remarkable for dilating the pupil, and producing a kind of mirthful delirium and wandering of the mind." If sleep be induced by the relief of pain, and that relief be procured through the use of Belladonna, we must, reasoning *à posteriori*, suppose some influence is exerted by the drug on the animal economy. Its distinctive feature in this respect seems to be its well-known power of dilating, or expanding the part to which it is applied; as not only is it employed by the oculist for the more speedy performance of his operations, but, on the authority of Royle and Headland, has been used as an application to the os uteri in protracted first labours, and in stricture of the urethra, and spasm of the sphincter ani.

Here, then, we come to a conclusion; and may ask what form or species of neuralgia would receive the greatest amount of benefit from the application of Belladonna? Probably this is a question on which doctors may differ. To review the subject on a broad and liberal basis, and carefully weigh the many and varied causes producing great pain, also the intimate connexion of the nerves and muscles in the human frame, I think I may be justified in saying, that it is probable *that in some cases* the proximate cause is muscular contraction, pain being produced in the nerves, entering into and surrounding the affected muscles.

"The whole of the sensible phenomena of muscular contraction pass in the muscles; but to a certainty no action can take place without the immediate action of the brain and the nerves. If the brain of a man or an animal is compressed, the faculty of contracting the muscle ceases; the nerves of a muscle being cut, it loses all power."—(Hooper's Medical Dictionary. Article—Muscular.)

It may be observed that in giving a theory such as the foregoing explanatory of the beneficial effects of Belladonna, muscular and nervous diseases are clashed together, and the latter deduced from the former; but I think it will be admitted there is a very close analogy in the pathology of these affections. To enter into the subject minutely would plunge us deeply into the sciences of human anatomy and physiology. Suffice it to say, in the treatment of disease, the pathologist well knows some remedies have a marked power in certain cases, while in others exhibiting any similar symptoms, he unsuccessfully looks for the same result.

"Quia non eadem omnibus,
Etiam in similibus casibus
Opitulantur."—1 Celsus i.

We must then presuppose varied causes; and these can only be detected by the penetration and sagacity of the medical man, who, with practised eye and calculating judgment, will successfully grapple with the enemy of the human frame—disease.

I fear I have exceeded usual limits; but considering the amount of space occasionally devoted to adverse criticism on the British Pharmacopœia, may be pardoned for bringing more prominently before the notice of the profession a galenical preparation worthy their confidence in certain cases, and for whose place in that work we are indebted to our practical friend, the author of its "Companion."

I remain, dear Sir, very faithfully yours,
GILBERT A. GILBERT.

Callington, Cornwall, March 2, 1865.

## NOTES AND QUERIES

"*Student.*"—The doctrines of our more advanced chemists are expounded by Professor Wurtz in his "Introduction to Chemical Philosophy according to Modern Theories," which is now appearing in weekly instalments in the columns of the *Chemical News*.

"*Nego.*"—The Act is so vague that we hesitate to give a positive opinion as to the liability incurred by the use of any label. No. 1 appears to us to require a stamp under the Act, because the name implies a claim to an exclusive right in preparing the article. Still, we scarcely think that you run much risk in vending the article bearing this label without a stamp. No. 2 distinctly recommends an article as beneficial to the relief of certain maladies, and consequently requires a stamp. No. 3 seems to have the characters of Nos. 1 and 2 combined.

*J. Hadfield.*—You doubtless mean the solution of chlorinated lime (Liquor Calcis Chloratæ), which is frequently used in the treatment of scabies. Solution of chloride of calcium is sometimes employed as an internal medicine, but is chiefly used as a test in chemical analysis. For a formula for preparing Liquor Calcis Chloratæ, see British Pharmacopœia.

*R. H.*, Pharmaceutical Chemist.—Baron Liebig's article on Infants' Food appeared in the January number of the *Popular Science Review*.

*R. P. B.*—We usually employ the grooved percolator, manufactured by the Y k Glass Company.

### COUNTER PRACTICE.

"*Chemicus*" (Huddersfield).—The right of chemists and druggists to prescribe has been fully discussed in our pages. In 1861, we obtained the opinion of counsel as to the legality of that system of prescribing or recommending medicines which is called "counter practice," and published the same in our Journal, November 1861. The gentleman we consulted (the late Mr. Tompson Chitty) was regarded as one of the soundest lawyers at the Bar; and he, after a careful examination of the whole question, came to the conclusion that counter practice was perfectly legal. We advise you to submit Mr. Chitty's opinion, as to what a chemist may and may not do legally, to your medical friend. You may also call his attention to the 28th section of the Apothecaries' Act, where it is enacted that nothing in the Act shall in any way affect the business or trade of a chemist and druggist; "but all persons using or exercising the said trade or business, or who shall or may hereafter use or exercise the same, shall and may use, exercise, and carry on the same trade or business, in such manner, and as fully and amply to all intents and purposes, as the same trade or business was used, exercised, or carried on by chemists and druggists before the passing of this Act."

### A FEW WORDS ABOUT LEECHES.

As so little is known of the propagation and growth of the officinal leech (*sanguisuga medicinalis*), I cannot help thinking that the following observations will be interesting to some of your readers:—

A short time since, Mr. Smith, of Tenterden, (my father), while examining his aquarium, which contained from 50 to 100 leeches, was much surprised at seeing some very minute creatures, hardly perceptible to the naked eye, gradually emerge from the shingle, and ascend up the side of the glass. On examining them more closely, and with the aid of a magnifying glass, he discovered they were really young leeches. His curiosity being excited by this most unusual occurrence, he carefully examined the aquarium several times daily, and found there were a great many small leeches, of different sizes, varying in colours from a dirty white to a dark brown, and in length from $\frac{1}{8}$ of an inch to $\frac{1}{4}$ an inch. This was perhaps about two months ago; and since then the young fry have apparently continued healthy, and have gradually, although very slowly, increased in size and number. The old ones, too, appear healthy, and seem to be doing perfectly well in the company of the rising generation.

The leeches, which were procured from Messrs. Fitch and Nottingham, of Hackney, had not been longer than a month in the aquarium (which is fitted with shingle, shells, and plants) before they began to increase. Mr. Smith noticed at the time they were placed in the aquarium they were particularly large, and looked as though they had been gorged; but their peculiar appearance was no doubt attributable to their interesting condition.

Some time since, a medical gentleman having procured some leeches that had been used, placed them with some mould and moss in an old teapot, which, after securing the lid, and attaching a piece of string to the handle, he threw into a pond in his garden. He forgot all about these leeches for some time, but at last something reminded him of his experiment; and after fishing up the old teapot and opening the lid, he found the leeches had materially increased in number, and the young ones were nearly all of a dirty white colour, and varying in size. He endeavoured to preserve them, but in the course of a few days they all died. Having some sickly leeches myself last summer, I threw them into my fountain-tub in the garden, where I had some water lilies and cress growing, also some small fish, including eels. I found them in a short time to have become perfectly healthy; and having been there nearly eight months, I venture to hope they have increased in number. Should this be the case, I will write you again. I never empty my aquarium entirely, but draw nearly all the water off by means of a syphon, when requisite. In this way I manage to keep my leeches healthy, without losing anything at the bottom which may afterwards be possessed of life. Spring water is decidedly preferable to any other for filling the aquarium. Perhaps these remarks may call forth a more able article from the pen of one of your readers.—A. W. SMITH, Rye.

### BLEACHING SPONGE.

I recollect seeing a few months since in your journal some processes for bleaching sponge, but I think in each case the sponge had to be immersed in an acid solution. I have found the following a better way, inasmuch as nothing except gaseous chlorine comes in contact with the sponge. In the first place, I get a box and a basin; I then put some sponge on a flat surface, and invert the box over it; in the basin I put some "chloride of lime" and sulphuric acid, and place it under the inverted box. The chlorine becomes quickly disengaged, and in a few minutes imparts to the sponge a nice white appearance, apparently without the slightest injury to its texture. The operation had better be performed in the air, as it soon fills the room or house with a powerful smell of chlorine.—A. W. S.

### GUAIACUM IN SOLUTION.

After a series of experiments extending over several months, I have succeeded in obtaining a beautifully clear solution of guaiacum, which, besides possessing all the properties of the gum, is perfectly soluble in water without precipitation; the solvent being a perfectly harmless alkaline diuretic, and a valuable adjunct when the administration of the guaiac is desirable.—A. W. S.

[An alkaline solution of guaiacum is not a novelty. Most of the gum resins are soluble in liq. potassæ. ED. C. & D.]

### A PRETTY EXPERIMENT.—METALLIC VEGETATION.

The Paris Correspondent of the *Chemical News* thus describes a scientific curiosity introduced by M. Jules Faure:—

"If you put a crystal of sulphate of copper, or sulphate of iron, into a very dilute solution of silicate of potash, a sort of mineral vegetation grows up of the colour of the sulphate. You may, in fact, obtain a miniature forest at the bottom of a jar; and by placing the crystal on the top of a layer of well-washed sand, coloured with a little bichromate of potash, you may appear to have an artificial soil greatly resembling a natural gravelly deposit. The misfortune is that you cannot move the vessel, for a slight shake will destroy all the beauty of the appearance."

The publication of the above led to a communication from Mr. Henry Ellis, M.R.C.S., describing a still more beautiful experiment. We are sure that our scientific contemporary will not blame us for reproducing the greater part of this communication:—

"Let a solution of chromate of potash be mixed with a clear solution of silicate of soda to such an extent that when gently heated the two solutions may form a gelatinous mass. Let this settle in a clear glass vessel. Then take crystals of sulphate of copper coarsely powdered, cause them to be dropped in small scattered quantities on the surface of the mass. Wherever a particle of the sulphate of copper touches the surface of the gelatinous silicate, a pellicle of chromo-silicate of copper will form. The particle then falling to the bottom, the same compound forms along its course downwards, but at first invisible to the eye; but when each particle arrives at the bottom a fresh growth of the mineral ore begins to ascend along the course by which it has descended, and so on from each individual particle up to the spot where it originally touched the surface; there it joins the pellicle, and the growth ceases.

"I think the mineral veins thus formed are tubular. The place where the particle of crystal first touches the gelatinous mass will be greater in diameter than the rest of the tubular structure, and the whole will bear a striking resemblance in form to a growth of cup-moss lichen (cladonia pyxidata). The gelatinous mass, when exposed to the air, will become solid, but will retain its original transparency, and the beautiful mineral arborescence may be preserved in that state for an indefinite period.

"By varying the experiment, and using other gelatinous silicates and crystals of other metallic salts, very instructive lessons may be gained, and the experimenter may have formed before his eyes, and become the possessor, within a few hours on a fine summer's day, of a number of miniature mines of lead and iron, zinc and copper, and silver and gold, the ores of which he will see branching in veins through the transparent matrix; and the reflection will occur to him that he is witnessing on a small scale a close imitation of some of Nature's own grand formations."

### CONTRIVANCE FOR CHECKING RAPID EBULLITION.

Dr. Erlenmeyer finds that ebullition of solutions having a high boiling point proceeds quietly and regularly in a vessel surrounded with asbestos tolerably short in the fibre. The asbestos is kept in its position by bending a piece of wire gauze to the shape of the vessel. In evaporating liquids, which are apt to boil in a fitful manner, and in performing fractional distillation, this "asbestos bath" has been found most useful.

### TESTING WITH LITMUS TINCTURE BY GASLIGHT.

There is sometimes a difficulty, when performing volumetric analyses by gaslight, in noting the change in the colour of the litmus tincture, in consequence of the blue appearing mauve. Mr. C. M. Blades, in a letter to the *Pharmaceutical Journal*, proposes to remedy this inconvenience by "watching the change through a piece of green glass not too deep in colour. The faintest trace of blue is then readily discernible, owing to the green glass absorbing the red ray and transmitting the blue, while the change to red will show an olive tint.

"The glass best suited for the purpose is that used by opticians for green spectacles. It is advisable to select the glass by gaslight, using for the purpose a few drops of litmus tincture in a tube or phial filled with water."

### NOTE ON CHLORODYNE, BY CHARLES BULLOCK.

The following article is extracted from the *American Journal of Pharmacy* :—

[Some time ago the late Dr. Franklin Bache presented us with a blue vial of "chlorodyne as introduced by Dr. J. Collis Browne," &c., &c., "manufactured by J. T. Davenport 33, Great Russell-street, Bloomsbury, London," which had been sent to him. The vial had a glass stopper, and was tied over with skin. Mr. Bullock being engaged in an attempt to produce "chlorodyne" by the recipe published in the *Chemist and Druggist*, Feb. 15th, 1860, the above specimen was submitted to him for comparison with his product. In justice it should be said that the vial had never been opened, but gave indications of not being so tight as to prevent loss of hydrocyanic acid, yet it was too nearly full to admit of much waste of chloroform. The following note from Mr. B. gives the result of his examination.—Ed. *Am. Jour. Pharm.*]

Philadelphia, Nov. 9, 1864.

Wm. Procter, Jr. :—

I herewith return the bottle of chlorodyne, and am much obliged for the opportunity of inspecting "Davenport's original, as introduced by Dr. J. Collis Browne, Army Medical Staff."

What is chlorodyne? Those who have attempted to put together the supposed ingredients after the instructions of Dr. Ogden (*Vide* Am. Jour. Pharm., vol. xxxii. pp. 181 and 334), have doubtless found that the pharmaceutist "was not at home" when the recipe was devised.

Perchlorate of morphia is almost entirely insoluble in chloroform, and the addition of the other ingredients mentioned in the recipe will not cause the morphia to be retained in solution. The amount of chloroform directed is evidently much in excess of what is contained in Davenport's chlorodyne.

A portion of chlorodyne was agitated with absolute alcohol, and the alcohol decanted from the viscid residue, insoluble in this menstruum.

The alcoholic solution, when mixed with water, occasioned but a faint cloudiness, indicating that oily or resinous substances were present only in minute quantities.

A solution of nitrate of silver, added to the alcohol, rendered it slightly turbid; a few drops of ammonia made the solution clear again. Hydrocyanic acid was thus shown to be absent in this specimen. After dilution with water, carb. of soda did not affect the alcoholic solution.

Another portion of the alcohol was evaporated in a watch-glass; a small portion of viscid matter was left, having a pungent, peppery taste.

The matter insoluble in alcohol appeared to be glucose. It dissolved readily in water. A drop of sulphuric acid was added, and the solution filtered. A few green streaks were left on the filter, resembling chlorophylle. To the solution carbonate of soda was added in slight excess, which caused a flocculent matter to separate; this was collected, and found to re-dissolve readily in water acidulated with acetic acid. A dilute solution of potassa again precipitated it. The precipitate, agitated with an excess of potassa, dissolved but sparingly; the clear solution again afforded a precipitate on being neutralised with acetic acid. This reaction would indicate the presence of morphia, though the appearance of the precipitate, when examined under a glass, was not recognised as the usual form of this alkaloid. That portion insoluble in potassa was again dissolved in dilute acetic acid; to the slightly acid solution carbonate of soda was added in excess. After standing an hour or two the solution remained clear. On heating it sufficiently to expel the free carbonic acid present, the solution became turbid, and deposited a flocculent matter, which, under a glass of 60 diameters, appeared amorphous, was sparingly soluble in spirits of wine, and infusible, charring when heated.

Of the alkaloids from opium, codeia behaves with reagents somewhat similar, viz., not precipitated from weak acid solutions by alkaline carbonates immediately, and not precipitated from its solutions by ammonia. The alkaloids strychnia, brucia, and veratria are soluble in a solution containing free carbonic acid. The absence of the first was indicated by the want of its characteristic bitterness, and the last two by insolubility in alcoholic menstrua.

Having encroached as far on the contents of the bottle as I felt free to do, I have not determined to my own satisfaction the character of the alkaloids present in chlorodyne, and hope that some of the correspondents of this Journal will give us more information concerning this nostrum.

About two-thirds of chlorodyne appears to be treacle; the remaining one-third chloroform, a small amount of water, in which the alkaloids are previously dissolved, a little peppermint, and capicum,—and perhaps some cannabis indica.

Tho following recipe will furnish a preparation having the pharmaceutical properties of chlorodyne, according to Dr. Ogden :—

℞

| | |
|---|---|
| Muriate of morphia, | grs. viii. |
| Water, | fl. ʒss. |
| Perchloric acid (25° B.) | gtt. xx. |
| Chloroform, | fl. ʒjss. |
| Tinct. of Indian hemp, | fl. ʒj. |
| Hydrocyanic acid (U.S.P.) | gtt. xii. |
| Molasses, | fl. ℥ss. |
| Oil of peppermint, | gtt. ij. |
| Oleoresin of capsicum, | gtt. i. |

To the morphia and water in a small flask add the perchloric acid, and heat until a clear solution is obtained. Then add the molasses, previously warmed to render it fluid. Heat the mixture, and agitate well. When cold, add the other ingredients, and mix thoroughly.

## TRADE REPORT.

There has been a more active demand for Chemicals during the past month, and prices, in many cases, have further advanced; business, however, is less active the last few days, and the extreme advanco is not so readily attainable. In Tartaric Acid a good business has been done, and the price has advanced to 1s. 6½d. to 1s. 6¾d. Citric has been largely taken, but is now quiet at 1s. 11d. Oxalic is firm at 9½d., but most of the makers are not selling under 10d. Chlorate is firm at 14d., but not much doing. Bichromato is quiet at 6d., and Prussiate of Potass remains nominal at 11¼d. to 11½d. A large business has been done in Iodine on speculation, and the price has been driven up to 6¾d. to 7d. More doing in Quinine; French is 5s. 5d. to 5s. 6d., and English steady at 5s. 9d. Sal Acetos is quiet at 11½d. to 12d. A good business has been done in Cream Tartar, and prices are rather dearer; the best is 107s. 6d. Sulphate of Copper is steady at 28s. Sal Ammoniac is without change; best 38s., seconds 36s. Alum more in request, and prices firm at £6 7s. 6d. in tierces. Brimstone is steady; Roll 9s. 9d. to 10s., Flour 12s. Sulphate of Ammonia is steady at 13s. 6d.

to 11s. 6d. Soda Crystals in good demand at 92s. 6d. to 95s. ex ship. A large business has been done in Ash at 2d. for No. 2. Bleaching Powder is quiet at 11s. to 11s. 6d. Carbonate of Soda steady at 11s. 6d. Refined Saltpetre is dull at 33s. to 34s., being rather lower. Linseed Oil is dull; spot 32s. 6d., Hull 32s., and April to June 33s. Rape is firm, at 44s. 3d. to 44s. 6d. for refined. Turpentine is lower, but sales made at 63s. 6d. to 64s. Petroleum in good demand, and prices firm at 1s. 11½d. to 2s. spot, and 2s. to 2s. 1d. forward delivery. Ashes are rather dearer.

The sales of Drugs have been moderate, without much change in prices. Some fresh arrivals of Ipecacuanha have taken place, and have only part sold at 10s. 6d., being rather easier. Turkey Opium is rather lower, some fine selling at 15s. 6d. to 16s. Citronelle Oil is rather lower, owing to large supplies. Castor Oil is a trifle better. Camphor advanced to 92s. 6d. to 95s. in lead; but is now dull at 92s. 6d. A large business has been done in Balsam Capivi, at previous prices. Cape Aloes are rather lower, some fine selling at 44s. to 45s. Barbadoes went off irregularly. Star Aniseed is without change. Cutch does not quite support the late advance. Some fine Gum Benjamin sold at £38 to £50. Shellac is steady. Gum Arabic and Animi sell steadily. Dammar without change. Some parcels of Calcutta Tamarinds sold at 16s. 6d. to 17s. Several sales of Bark have taken place, but only a small portion sold at about late prices. Cardamoms are without change. The chief part of the Rhubarb attainable being second-hand parcels, only a few lots sold at rather moderate prices. Tonquin Musk sold at the full value. Several parcels of Tinnivelly Senna sold at 5½d. to 6½d., and Bombay, at 4¼d. to 4¾d. Bees' Wax is again rather dearer. In other goods no change.

## PRICE CURRENT.

*These quotations are the latest for* ACTUAL SALES *in Mincing Lane. It will be necessary for our retail subscribers to bear in mind that they cannot, as a rule, purchase at the prices quoted, inasmuch as these are the* CASH PRICES IN BULK. *They will, however, be able to form a tolerably correct idea of what they ought to pay.*

| | 1865. | 1865. | 1864. | 1864. |
|---|---|---|---|---|
| | s. d. | s. d. | s. d. | s. d. |
| ARGOL, Cape, per cwt. | 75 0 | 97 6 | 87 6 | 97 6 |
| French | 60 0 | 85 0 | 60 0 | 80 0 |
| Oporto, red | 45 0 | 47 0 | 46 0 | 47 0 |
| Sicily | 72 6 | 75 0 | 70 0 | 75 0 |
| Naples, white | 68 0 | 76 0 | 65 0 | 80 0 |
| Florence, white | 85 0 | 90 0 | 87 6 | 95 0 |
| red | 80 0 | 85 0 | 80 0 | 85 0 |
| Bologna, white | 90 0 | 95 0 | 90 0 | 95 0 |
| ARROWROOT..(duty 4½ per cwt.) | | | | |
| Bermuda..per lb. | 1 6 | 1 8 | 1 8 | 1 11 |
| St. Vincent | 0 3 | 0 6 | 0 4¼ | 0 8½ |
| Jamaica | 0 4 | 0 7¼ | 0 4 | 0 6 |
| Other West India | 0 3 | 0 4½ | 0 3½ | 0 5 |
| Brazil | 0 2¼ | 0 3 | 0 2 | 0 3 |
| East India | 0 2½ | 0 5 | 0 3½ | 0 6 |
| Natal | 0 4¾ | 0 8 | 0 6 | 0 10 |
| Sierra Leone | 0 4½ | 0 5 | 0 5½ | 0 5¾ |
| ASHES....per cwt. | | | | |
| Pot, Canada, 1st sort | 31 6 | 0 0 | 31 0 | 32 0 |
| Pearl, ditto, 1st sort | 32 6 | 0 0 | 36 0 | 0 0 |
| BRIMSTONE, | | | | |
| rough....per ton | 155 0 | 0 0 | 160 0 | 0 0 |
| roll | 195 0 | 210 0 | 195 0 | 200 0 |
| flour | 240 0 | 250 0 | 230 0 | 250 0 |
| CHEMICALS, | | | | |
| Acid—Acetic, per lb. | 0 4 | 0 0 | 0 4¼ | 0 4½ |
| Citric | 1 11 | 1 11½ | 1 5 | 0 0 |
| Nitric | 0 5 | 0 5½ | 0 5 | 0 5½ |
| Oxalic | 0 9½ | 0 10 | 0 9 | 0 0 |
| Sulphuric | 0 0⅝ | 0 1 | 0 0¾ | 0 1 |
| Tartaric crystal | 1 6¾ | 1 7 | 1 5¼ | 1 5½ |
| powdered | 1 7 | 1 7½ | 1 5½ | 1 5¼ |
| Alum per ton | 127 6 | 130 0 | 125 0 | 130 0 |
| powder | 140 0 | 145 0 | 145 0 | 0 0 |
| Ammonia, Carbonate, per lb. | 0 5¾ | 0 6 | 0 5¾ | 0 6 |
| Sulphate per ton | 270 0 | 290 0 | 270 0 | 290 0 |
| Antimony, ore | 160 0 | 180 0 | 200 0 | 230 0 |
| crude per cwt | 26 0 | 0 0 | 26 0 | 0 0 |
| regulus | 35 0 | 36 0 | 38 0 | 0 0 |
| French star | 36 0 | 0 0 | 38 0 | 0 0 |
| Arsenic, lump | 12 0 | 12 6 | 16 0 | 0 0 |
| powder | 5 6 | 6 0 | 9 6 | 9 6 |
| Bleaching powder | 11 0 | 11 6 | 12 6 | 13 0 |
| Borax, East India refined | 0 0 | 0 0 | 55 0 | 0 0 |
| British | 50 0 | 0 0 | 56 0 | 0 0 |
| Calomel per lb. | 2 8 | 0 0 | 2 8 | 2 9 |
| Camphor, refined | 1 3 | 1 4 | 1 8 | 0 0 |
| Copperas, green ....per ton | 52 6 | 55 0 | 55 0 | 0 0 |
| Corrosive Sublimate, per lb. | 2 4 | 0 0 | 2 0 | 2 1 |
| Green Emerald | 0 0 | 0 0 | 0 0 | 0 0 |
| Brunswick.... per cwt. | 0 0 | 0 0 | 0 0 | 0 0 |
| CHEMICALS. | | | | |
| Iodine, dry per oz. | 0 6⅞ | 0 7 | 0 6⅛ | 0 6¾ |
| Magnesia, Carbon per cwt. | 42 6 | 45 0 | 42 6 | 47 6 |
| Calcined . per lb. | 1 6 | 1 8 | 1 2 | 2 0 |
| Minium, red per cwt. | 21 6 | 24 6 | 21 3 | 21 6 |
| orange | 32 6 | 33 0 | 32 0 | 33 0 |
| Potash, Bichromate per lb. | 0 6 | 0 0 | 0 8 | 0 0 |
| Chlorate | 0 0 | 1 1 | 0 11½ | 0 0 |
| Hydriodate..per oz. | 0 5½ | 0 0 | 0 5¼ | 0 5½ |
| Prussiate....per lb. | 0 11¼ | 0 11½ | 0 11½ | 0 11½ |
| red | 1 9½ | 1 11 | 1 10 | 1 11 |
| Precipitate, red .... per lb. | 2 10 | 0 0 | 2 8 | 2 9 |
| white | 2 10 | 0 0 | 2 8 | 2 9 |
| Prussian Blue | 1 0 | 1 10 | 1 0 | 1 10 |
| Rose Pink per cwt. | 29 0 | 0 0 | 29 0 | 0 0 |
| Sal-Acetos per lb. | 0 11½ | 1 0 | 0 11 | 0 0 |
| Sal-Ammoniac ....per cwt. | | | | |
| British | 36 0 | 38 0 | 36 0 | 35 0 |
| Salts, Epsom | 9 6 | 10 6 | 8 0 | 8 6 |
| Glauber | 5 0 | 5 6 | 3 6 | 5 6 |
| Soda, Ash per deg. | 0 2 | 0 2⅛ | 0 1⅞ | 0 2¼ |
| Bicarbonate..per cwt. | 11 0 | 0 0 | 11 6 | 12 0 |
| Crystals per ton | 92 6 | 95 0 | 92 6 | 95 0 |
| Sugar Lead, white per cwt. | 37 6 | 38 0 | 38 0 | 0 0 |
| brown | 27 6 | 28 6 | 29 0 | 30 0 |
| Sulphate Quinine....per oz. | | | | |
| British, in bottle | 5 8 | 5 9 | 6 6 | 0 0 |
| Foreign | 5 5 | 5 6 | 6 2 | 0 0 |
| Sulphate Zinc per cwt. | 14 6 | 15 0 | 14 6 | 15 0 |
| Verdigris per lb. | 0 11 | 1 0 | 0 10 | 1 0 |
| Vermilion, English | 3 0 | 3 4 | 2 8 | 3 0 |
| China | 2 6 | 2 7 | 2 0 | 2 1 |
| Vitriol, blue or Rom. per ct. | 27 6 | 28 0 | 30 0 | 31 0 |
| COCHINEAL, per lb. | | | | |
| Honduras, black | 3 0 | 4 6 | 3 4 | 4 6 |
| silver | 2 6 | 3 3 | 2 8 | 3 8 |
| Mexican, black | 3 0 | 3 3 | 3 8 | 3 9 |
| silver | 2 11 | 3 0 | 3 4 | 3 5 |
| Lima | 0 0 | 0 0 | 0 0 | 0 0 |
| Teneriffe, black | 3 0 | 3 7 | 3 7 | 4 0 |
| silver | 2 11 | 3 2 | 3 5 | 3 8 |
| DRUGS, | | | | |
| Aloes, Hepatic ....per cwt. | 100 0 | 170 0 | 100 0 | 170 0 |
| Socotrine | 170 0 | 300 0 | 170 0 | 300 0 |
| Cape, good | 44 0 | 45 0 | 44 0 | 46 0 |
| inferior | 25 0 | 40 0 | 30 0 | 42 0 |
| Barbadoes | 60 0 | 300 0 | 50 0 | 320 0 |
| Ambergris, grey ....per oz. | 19 0 | 22 0 | 17 0 | 20 0 |
| Angelica Root ....per cwt. | 20 0 | 35 0 | 20 0 | 35 0 |
| Aniseed, China star | 115 0 | 117 6 | 150 0 | 160 0 |
| German, &c. | 24 0 | 39 0 | 20 0 | 39 0 |
| Balsam, Canada ....per lb. | 0 10 | 0 0 | 0 11 | 0 0 |
| Capivi | 1 6 | 1 7 | 1 7 | 1 9 |
| Peru | 4 8 | 4 9 | 4 9 | 4 11 |
| Tolu | 3 4 | 3 6 | 3 6 | 3 7 |
| Bark, Cascarilla....per cwt. | 25 0 | 36 0 | 25 0 | 40 0 |
| Peru, crown & grey per lb. | 0 9 | 2 3 | 1 0 | 2 0 |
| Calisaya, flat | 3 0 | 3 6 | 3 0 | 4 0 |
| quill | 2 9 | 3 3 | 2 10 | 3 4 |
| Carthagena | 1 1 | 1 10 | 1 2 | 2 0 |
| Pitayo | 1 5 | 2 3 | 1 8 | 2 6 |
| Red | 3 0 | 11 3 | 2 6 | 8 9 |
| Bay Berries per cwt. | 0 0 | 0 0 | 0 0 | 0 0 |
| Bucca Leaves per lb. | 0 3 | 0 10 | 0 3 | 1 0 |
| Camomile Flowers | 15 0 | 70 0 | 30 0 | 70 0 |
| Camphor, China | 90 0 | 92 6 | 115 0 | 120 0 |
| Canella alba | 23 0 | 33 0 | 25 0 | 35 0 |
| Cantharides per lb. | 2 3 | 2 5 | 2 6 | 0 0 |
| Cardamoms, Malabar, good | 5 4 | 6 0 | 5 9 | 6 6 |
| inferior | 4 4 | 5 3 | 4 0 | 5 6 |
| Madras | 2 0 | 3 9 | 3 6 | 5 3 |
| Ceylon | 5 0 | 5 5 | 4 6 | 5 1 |
| Cassia Fistula per cwt. | 14 0 | 28 0 | 20 0 | 35 0 |
| Castor Oil, 1st pale ..per lb. | 0 6 | 0 7 | 0 5½ | 0 6½ |
| 2nd | 0 4¾ | 0 6 | 0 4¾ | 0 5¼ |
| inferior and dark | 0 4½ | 0 4½ | 0 4¼ | 0 4½ |
| Bombay, in casks | 0 4¾ | 0 4¾ | 0 4¼ | 0 4¾ |
| Castorum | 1 0 | 20 0 | 1 0 | 20 0 |
| China Root per cwt. | 15 0 | 20 0 | 16 0 | 17 0 |
| Cocculus Indicus | 22 0 | 24 0 | 18 0 | 22 0 |
| Cod Liver Oil per gal. | 6 0 | 13 0 | 7 0 | 12 0 |
| Colocynth, apple ....per lb. | 0 7 | 1 1 | 0 6 | 0 11 |
| Colombo Root ....per cwt. | 75 0 | 110 0 | 70 0 | 91 0 |
| Cream Tartar | | | | |
| French | 102 6 | 105 0 | 107 6 | 101 0 |
| Venetian | 105 6 | 107 6 | 110 0 | 112 6 |
| grey | 92 6 | 95 0 | 95 0 | 100 0 |
| brown | 85 0 | 92 6 | 85 6 | 95 0 |
| Croton Seed | 90 0 | 95 0 | 70 0 | 80 0 |
| Cubebs | 77 6 | 80 0 | 92 6 | 97 6 |
| Cummin Seed | 20 0 | 26 0 | 22 0 | 30 0 |
| Dragon's blood reed | 200 0 | 300 0 | 200 0 | 300 0 |
| lump | 90 0 | 260 0 | 90 0 | 260 0 |
| Galangal Root | 15 0 | 16 0 | 20 0 | 23 0 |
| Gentian Root | 23 0 | 0 0 | 18 0 | 19 0 |
| Guinea Grains .... per cwt. | 62 0 | 65 0 | 75 0 | 76 0 |
| Honey, Narbonne | 40 0 | 80 0 | 40 0 | 80 0 |
| Cuba | 23 0 | 35 0 | 26 0 | 38 0 |
| Jamaica | 23 0 | 60 0 | 27 0 | 63 0 |
| Ipecacuanha per lb. | 10 6 | 0 0 | 8 0 | 8 2 |
| Isinglass, Brazil | 1 4 | 4 4 | 2 0 | 4 0 |
| East India | 0 10 | 4 4 | 0 6 | 4 3 |
| West India | 3 0 | 3 7 | 3 2 | 3 4 |
| Russian | 9 6 | 12 0 | 9 6 | 12 0 |
| Jalap | 0 9 | 6 3 | 0 9 | 5 0 |

| | 1865. | 1865. | 1864. | 1864. |
|---|---|---|---|---|
| DRUGS—*continued.* | | | | |
| Juniper Berries ....per cwt. | s. d. | s. d | s. d. | s. d |
| German and French .. | 7 0 | 9 0 | 8 0 | 9 0 |
| Italian ............... | 9 0 | 10 0 | 8 0 | 10 0 |
| Lemon Juice ......per d g. | 0 0¾ | 0 0⅞ | 0 0½ | 0 0¾ |
| Liquorice ..........per cwt. | | | | |
| Spanish .......... | 75 0 | 80 0 | 80 0 | 83 0 |
| Italian ............ | 55 0 | 70 0 | 60 0 | 80 0 |
| Manna, flaky ............. | 2 6 | 2 9 | 2 9 | 3 6 |
| small ............... | 1 2 | 1 4 | 1 4 | 1 6 |
| Musk ...............per oz. | 24 0 | 32 0 | 20 0 | 36 0 |
| Nux Vomica ............... | 12 0 | 14 6 | 11 0 | 16 0 |
| Opium, Turkey ............ | 18 0 | 15 9 | 18 0 | 19 0 |
| Egyptian .......... | 0 0 | 0 0 | 9 0 | 15 0 |
| Orris Root ......per cwt. | 30 0 | 31 0 | 26 0 | 28 0 |
| Pink Root ......... per lb. | 3 0 | 3 2 | 3 0 | 3 6 |
| Quassia (bitter wood) per ton | 70 0 | 0 0 | 140 0 | 150 0 |
| Rhatany Root ......per lb. | 0 6 | 1 1 | 0 8 | 1 10 |
| Rhubarb, China, round .... | 2 6 | 7 6 | 3 0 | 6 0 |
| flat ...... | 3 6 | 6 6 | 3 3 | 6 3 |
| Dutch, trimmed .. | 9 0 | 10 0 | 0 0 | 0 0 |
| Russian .......... | 11 0 | 13 0 | 12 6 | 13 0 |
| Saffron, Spanish .......... | 28 0 | 34 0 | 32 0 | 0 0 |
| Salep............... per cwt. | 130 0 | 0 0 | 120 0 | 125 0 |
| Sarsaparilla, Lima ........ | 1 0 | 1 5 | 0 10 | 1 0 |
| Para ........ | 0 11 | 1 1 | 0 10 | 1 2 |
| Honduras .... | 0 11 | 1 7 | 0 10 | 1 6 |
| Jamaica ...... | 1 6 | 2 3 | 1 6 | 2 4 |
| Sassafras ..........per cwt. | 14 0 | 15 0 | 14 0 | 15 0 |
| Scammony, virgin ..per lb. | 30 0 | 34 0 | 30 0 | 38 0 |
| second ........ | 12 0 | 23 0 | 12 0 | 23 0 |
| Seneka Root .............. | 3 2 | 3 3 | 4 6 | 4 9 |
| Senna, Calcutta ............ | 0 0 | 0 0 | 0 0 | 0 0 |
| Bombay ............ | 0 3½ | 0 6 | 0 2½ | 0 3½ |
| Tinnevelly .......... | 0 4½ | 1 3 | 0 4 | 1 7 |
| Alexandria .......... | 0 5¼ | 0 8 | 0 3½ | 0 8 |
| Snake Root ................ | 5 6 | 0 0 | 5 0 | 6 0 |
| Spermaceti, refined ........ | 1 0 | 1 2 | 1 0 | 1 2 |
| Squills ..................... | 0 0¾ | 0 2¼ | 0 1 | 0 2½ |
| Tamarinds, E. India, per cwt. | 15 0 | 17 0 | 12 0 | 13 6 |
| West India .......... | 10 0 | 23 0 | 14 0 | 22 0 |
| Terra Japonica— | | | | |
| Gambier ....per cwt. | 22 0 | 27 0 | 22 0 | 25 0 |
| Cutch .............. | 24 6 | 26 0 | 27 0 | 27 6 |
| Valerian Root, English .... | 20 0 | 29 0 | 20 0 | 30 0 |
| Vanilla, Mexican......per lb. | 26 0 | 38 0 | 20 0 | 38 0 |
| Wormseed..........per cwt. | 11 0 | 12 0 | 2 0 | 0 0 |
| GUM—Ammoniac, drop, per cwt. | 95 0 | 120 0 | 100 0 | 120 0 |
| lump .......... | 30 0 | 85 0 | 20 0 | 85 0 |
| Animi, fine pale ............ | 200 0 | 230 0 | 200 0 | 210 0 |
| bold amber.......... | 190 0 | 220 0 | 190 0 | 210 0 |
| medium ............ | 160 0 | 180 0 | 160 0 | 180 0 |
| small and dark ...... | 100 0 | 150 0 | 100 0 | 155 0 |
| ordinary dark ...... | 40 0 | 95 0 | 40 0 | 95 0 |
| Arabic, E. I., fine pale picked | 85 0 | 90 0 | 60 0 | 65 0 |
| unsorted, good to fine | 64 0 | 80 0 | 44 0 | 60 0 |
| red and mixed ...... | 50 0 | 60 0 | 32 0 | 40 0 |
| siftings ............ | 25 0 | 40 0 | 15 0 | 30 0 |
| Turkey, picked, good to fine | 120 0 | 160 0 | 120 0 | 160 0 |
| second and inferior. | 65 0 | 110 0 | 65 0 | 110 0 |
| in sorts ............ | 32 0 | 50 0 | 32 0 | 50 0 |
| Gedda..................... | 39 0 | 40 0 | 30 0 | 32 0 |
| Barbary, white ............ | 73 0 | 75 0 | 54 0 | 64 0 |
| brown ............ | 46 0 | 49 0 | 35 0 | 37 0 |
| Australian.................. | 30 0 | 36 0 | 27 0 | 37 0 |
| Assafœtida, fair to good .... | 30 0 | 75 0 | 30 0 | 80 0 |
| Benjamin, 1st quality ...... | 350 0 | 950 0 | 350 0 | 630 0 |
| 2nd ,, ...... | 280 0 | 300 0 | 280 0 | 300 0 |
| 3rd ,, ...... | 50 0 | 240 0 | 50 0 | 240 0 |
| Copal, Angola, red .......... | 75 0 | 85 0 | 85 0 | 95 0 |
| pale ........ | 80 0 | 90 0 | 85 0 | 95 0 |
| Benguela ............ | 60 0 | 85 0 | 80 0 | 100 0 |
| Sierra Leone .. per lb. | 0 3 | 0 11 | 0 4 | 1 0 |
| Manilla...... per cwt. | 24 0 | 43 0 | 35 0 | 55 0 |
| Dammar, pale ......per cwt. | 34 0 | 48 0 | 38 0 | 45 0 |
| Galbanum .................. | 160 0 | 170 0 | 100 0 | 120 0 |
| Gamboge, picked, pipe ...... | 250 0 | 300 0 | 160 0 | 190 0 |
| in sorts .......... | 140 0 | 240 0 | 90 0 | 150 0 |
| Guaiacum............per lb. | 1 0 | 2 0 | 0 6 | 1 5 |
| Kino ............... per cwt. | 300 0 | 500 0 | 300 0 | 400 0 |
| Kowrie ..................... | 23 0 | 55 0 | 42 0 | 65 0 |
| Mastic, picked ...... per lb. | 6 0 | 6 0 | 4 6 | 5 0 |
| Myrrh, gd. and fine, per cwt. | 130 0 | 180 0 | 140 0 | 180 0 |
| sorts............... | 70 0 | 120 0 | 70 0 | 130 0 |
| Olibanum, pale drop ........ | 65 0 | 72 0 | 72 0 | 78 0 |
| amber and yellow | 58 0 | 62 0 | 48 0 | 60 0 |
| mixed and dark.. | 17 0 | 44 0 | 16 0 | 35 0 |
| Senegal ..................... | 75 0 | 85 0 | 75 0 | 80 0 |
| Sandrac ..................... | 73 0 | 95 0 | 85 0 | 102 6 |
| Tragacanth, leaf ............ | 150 0 | 260 0 | 180 0 | 260 0 |
| in sorts ........ | 100 0 | 130 0 | 100 0 | 130 0 |
| OILS.................per tun | £ s. | £ s. | £ s. | £ s. |
| Seal ......................... | 40 0 | 48 0 | 41 0 | 48 10 |
| Sperm, body.................. | 79 0 | 81 0 | 74 0 | 75 0 |
| Cod ......................... | 51 10 | 52 0 | 48 0 | 0 0 |
| Whale, Greenland .......... | 0 0 | 0 0 | 0 0 | 0 0 |
| South Sea, pale...... | 42 0 | 44 10 | 42 0 | 48 0 |
| East India Fish...... | 30 10 | 0 0 | 40 0 | 42 0 |
| Olive, Gallipoli ...... per ton | 52 0 | 0 0 | 58 0 | 59 0 |
| | s. d. | s. d. | s. d. | s. d. |
| Florence, half-chest .. | 20 0 | 0 0 | 20 0 | 21 0 |
| Cocoanut, Cochin .. per cwt. | 40 0 | 49 9 | 43 0 | 44 0 |
| Ceylon .......... | 38 0 | 39 0 | 39 0 | 40 0 |
| Sydney .......... | 32 0 | 37 6 | 36 0 | 38 0 |
| Ground Nut and Gin. | | | | |
| Bombay .................. | 38 0 | 0 0 | 38 0 | 39 0 |

| | 1865. | 1865. | 1864. | 1864. |
|---|---|---|---|---|
| OILS—*continued.* | s. d. | s. d. | s. d. | s. d. |
| Madras ..........per cwt. | 36 0 | 37 0 | 40 0 | 41 0 |
| Palm, fine ................ | 35 0 | 36 6 | 36 0 | 36 6 |
| Linseed .................... | 32 6 | 0 0 | 36 0 | 0 0 |
| Rapeseed, English, pale .... | 44 0 | 44 6 | 42 6 | 0 0 |
| brown .......... | 41 6 | 0 0 | 40 0 | 0 0 |
| Foreign pale .... | 44 0 | 44 6 | 43 0 | 0 0 |
| brown .......... | 41 6 | 42 0 | 40 6 | 0 0 |
| Lard ...................... | 60 0 | 0 0 | 46 0 | 48 0 |
| Tallow .................... | 38 0 | 0 0 | 41 0 | 41 6 |
| Rock Crude ........ per ton | £17 10 | £18 0 | £16 0 | 0 0 |
| OILS, Essential— | | | | |
| Almond, essential ....per lb. | 0 0 | 0 0 | 19 0 | 0 0 |
| expressed ....... | 1 0½ | 0 0 | 0 0 | 0 0 |
| Aniseed ................... | 6 1 | 6 2 | 6 9 | 6 10 |
| Bay ................per cwt. | 110 0 | 120 0 | 110 0 | 120 0 |
| Bergamot ...........per lb. | 7 0 | 10 0 | 7 0 | 10 0 |
| Cajeputa, (in bond) ..per oz. | 0 2½ | 0 2¾ | 0 2½ | 0 2¾ |
| Caraway ...........per lb. | 5 0 | 6 6 | 4 3 | 5 6 |
| Cassia ..................... | 8 0 | 0 0 | 9 3 | 9 6 |
| Cinnamon (in bond) ..per oz. | 0 9 | 3 0 | 1 0 | 2 9 |
| Cinnamon Leaf ........... | 0 2 | 0 4½ | 0 2 | 0 4½ |
| Citronel .................... | 0 4½ | 0 5 | 0 5½ | 0 5¼ |
| Clove ...................... | 0 2 | 0 4 | 0 2 | 0 4 |
| Croton ..................... | 0 9 | 1 0 | 0 0 | 0 0 |
| Juniper..............per lb. | 1 10 | 3 0 | 1 10 | 3 0 |
| Lavender .................. | 2 6 | 4 6 | 2 6 | 4 6 |
| Lemon ..................... | 5 0 | 8 0 | 5 6 | 7 0 |
| Lemongrass..........per oz. | 1 6 | 1 8 | 0 10½ | 0 11 |
| Mace, ex. .................. | 0 1 | 0 2½ | 0 1 | 0 2½ |
| Neroli ..................... | 5 0 | 6 6 | 5 0 | 7 0 |
| Nutmeg .................... | 0 1 | 0 2½ | 0 1½ | 0 2½ |
| Orange ..............per lb. | 5 6 | 6 9 | 6 0 | 7 0 |
| Otto of Roses ........per oz. | 17 0 | 23 0 | 15 0 | 25 0 |
| Peppermint, per lb. | | | | |
| American ................ | 13 0 | 13 3 | 9 0 | 14 3 |
| English .................. | 34 0 | 36 0 | 34 0 | 36 0 |
| Rhodium ............per oz. | 0 0 | 0 0 | 3 6 | 5 6 |
| Rosemary ............per lb. | 0 0 | 0 0 | 1 9 | 3 0 |
| Sassafras .................. | 2 0 | 3 6 | 4 0 | 4 6 |
| Spearmint .................. | 5 0 | 8 0 | 5 0 | 8 6 |
| Spike ...................... | 0 0 | 0 0 | 0 0 | 0 0 |
| Thyme ..................... | 1 9 | 2 3 | 1 9 | 2 3 |
| PITCH, British ......per cwt. | 12 0 | 0 0 | 12 0 | 0 0 |
| Swedish ............ | 0 0 | 0 0 | 0 0 | 0 0 |
| SALTPETRE, per cwt. | | | | |
| English, 6 per cent. or under | 30 0 | 21 0 | 35 6 | 36 6 |
| over 6 per cent..... | 29 0 | 29 6 | 34 6 | 35 6 |
| Madras .................... | 27 0 | 29 0 | 34 0 | 35 0 |
| Bombay.................... | 23 0 | 26 6 | 32 0 | 33 6 |
| British-refined ........... | 33 0 | 34 0 | 39 6 | 40 0 |
| Nitrate of soda............ | 14 6 | 15 0 | 15 6 | 16 6 |
| SEED, Canary ........per qr. | 40 0 | 46 0 | 56 0 | 62 0 |
| Caraway, English .. per cwt. | 0 0 | 0 0 | 28 0 | 34 0 |
| German, &c. ...... | 0 0 | 0 0 | 27 0 | 30 0 |
| Coriander .................. | 0 0 | 0 0 | 10 0 | 14 0 |
| East India........ | 0 0 | 0 0 | 0 0 | 0 0 |
| Hemp....................... | 44 0 | 0 0 | 37 0 | 40 0 |
| Linseed, Black Sea.......... | 57 0 | 0 0 | 54 0 | 55 0 |
| Calcutta .......... | 55 0 | 59 0 | 54 0 | 59 0 |
| Bombay .......... | 59 0 | 0 0 | 60 0 | 61 0 |
| Egyptian .......... | 55 0 | 0 0 | 58 0 | 0 0 |
| Mustard, brown....per bshl. | 0 0 | 0 0 | 7 0 | 12 0 |
| white ............ | 0 0 | 0 0 | 8 0 | 10 0 |
| Poppy, East India....per qr. | 48 6 | 50 0 | 50 0 | 51 0 |
| Rape, English .............. | 0 0 | 0 0 | 0 0 | 0 0 |
| Danube ............. | 0 0 | 0 0 | 0 0 | 0 0 |
| Calcutta fine.......... | 54 0 | 55 0 | 52 0 | 0 0 |
| Bombay ............ | 63 0 | 0 0 | 54 0 | 58 0 |
| Teel, Sesmy or Gingy......... | 57 0 | 59 0 | 58 0 | 62 0 |
| Cotton ..............per ton | 140 0 | 145 0 | 150 0 | 157 6 |
| Ground Nut Kernels per ton | 270 0 | 280 0 | 260 0 | 0 0 |
| SOAP, London yel. .. per cwt. | 20 0 | 34 0 | 20 0 | 34 0 |
| mottled ...... | 34 0 | 30 0 | 34 0 | 36 0 |
| curd .......... | 46 0 | 50 0 | 45 0 | 50 0 |
| Castile ................ | 40 0 | 41 0 | 40 0 | 41 0 |
| Marseilles ............ | 40 0 | 42 0 | 40 0 | 42 0 |
| Soy, China ........per gal. | 3 3 | 0 0 | 2 6 | 2 9 |
| Japan ................ | 1 5 | 0 0 | 0 0 | 0 0 |
| Sponge, Turkey, fine picked | 19 0 | 23 0 | 20 0 | 24 0 |
| fair to good | 7 0 | 17 0 | 8 0 | 18 0 |
| ordinary .. | 2 6 | 6 0 | 3 0 | 6 0 |
| Bahama .. | 0 4 | 1 3 | 0 3 | 1 3 |
| TURPENTINE, Rough, per ct. | 0 0 | 0 0 | 0 0 | 0 0 |
| Spirits, French | 63 6 | 64 0 | 80 0 | 0 0 |
| American, in casks | 0 0 | 0 0 | 0 0 | 0 0 |
| WAX, Bees, English .......... | 175 0 | 180 0 | 170 0 | 175 0 |
| German .............. | 180 0 | 190 0 | 165 0 | 185 |
| American ............ | 185 0 | 0 0 | 175 0 | 180 |
| white fine .......... | 0 0 | 0 0 | 0 0 | 0 |
| Jamaica .............. | 190 0 | 200 0 | 185 0 | 192 |
| Gambia .............. | 190 0 | 195 0 | 175 0 | 180 |
| Mogadore ............ | 125 0 | 165 0 | 125 0 | 160 |
| East India............ | 150 0 | 190 0 | 150 0 | 175 |
| ditto, bleached ...... | 200 0 | 220 0 | 210 0 | 250 |
| vegetable, Japan ...... | 56 0 | 70 0 | 58 0 | 75 |
| WOOD, DYE, per ton | | | | |
| Fustic, Cuba.......... | 180 0 | 190 0 | 175 0 | 185 |
| Jamaica ............ | 110 0 | 120 0 | 135 0 | 140 |
| Savanilla ............ | 120 0 | 0 0 | 125 0 | 0 |
| Zante ................ | 0 0 | 0 0 | 140 0 | 110 |
| Logwood, Campeachy | 180 0 | 210 0 | 190 0 | 240 |
| Honduras .. | 100 0 | 0 0 | 120 0 | 0 |
| St. Domingo | 80 0 | 82 6 | 90 0 | 95 |
| Jamaica .. . | 75 0 | 82 6 | 85 0 | 90 |